



**2003**



# **Missouri State of the State Information Technology Report**

**Missouri Office Of Information Technology**

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# Office of Information Technology

## 2003 State of the State IT Report

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### Executive Summary

#### ***The Report***

The State of the State IT Report serves as an annual review of the accomplishments, planned projects and accumulated demand experienced by Missouri's information technology community. Originating through legislation introduced in House Bill 5 of the 1999 state legislature, the following section outlines the report's purpose and timeline.

*Section 5.225. To the Office of Administration: (1999 House Bill 5)  
For the purpose of funding the Office of Information Technology and an annual status report of information technology projects. The report is to be submitted to the Senate Appropriations Committee Chair and the House Budget Committee Chair by December 31 of each year.*

Along with each agency's accomplishments, planned projects and accumulated demand, you will also find pertinent information describing each agency, their information technology division, individuals assigned to strategic committees, and the hardware/software technologies utilized. This information should prove to be an important resource to Missouri's information technology community and other interested entities.

#### ***Mission and Goals***

*The mission of Missouri Information Technology is to make state government more efficient, more effective, and more accessible to its citizens through innovative, time-saving, and cost-saving technology applications. (Information Technology Strategic Plan – Fiscal Year 2004)*

#### ***Goal – Maximize the efficiency of Missouri's information technology infrastructure.***

Every department included in this report addresses accomplishments relevant to this particular goal. A broad example of this is the work that has been and continues to be accomplished toward enterprise information technology architecture. With the participation of subject matter experts from many of the state's agencies, various information technology domains are researched and guidelines with product standards

defined to assist leveraging and maximizing the state's information technology infrastructure.

***Goal – Performance Management is fully utilized to maintain focus on long-term goals and strategic objectives.***

Work toward this goal is currently underway with the completion of Part I of a three-part document that will serve as a reference model or standardized framework to measure the performance of major information technology initiatives and their contribution to program performance. Completion of the remaining two parts is expected during 2004.

***Goal – Strengthen the role of information technology in Missouri State Government.***

An important accomplishment toward this goal occurred during 2003 with the signing of the executive order formalizing the Office of Information Technology and establishing the authority of the Chief Information Officer. With a seat on the Governor's Cabinet, the state's CIO has the opportunity to communicate information technology issues at the department director level. Awareness of the value of information technology is also achieved through the publication of the Missouri Technology newsletter, presentations to city and county government and hosting of the annual Missouri Digital Government Summit that encourages sharing and cooperative initiatives across all levels of government.

***Quick Facts***

The following statistics are gathered from the individual department/agency reports and profiles included in this document. Please bear in mind not all departments provide an annual report and some of the annual report participants are agencies or divisions of a larger department. An example of this would be the Missouri State Highway Patrol, an annual report participant, who exists as a division of the Department of Public Safety.

	2002	2003
Total number of participating departments/agencies .....	22	23
Total number of major accomplishments reported .....	260	327
Total number of major planned projects reported.....	198	253
Total number reporting an assigned security officer .....	16	18
Total number reporting an assigned privacy officer .....	6	8
Total number of Missouri certified project managers.....	146	152

## ***Conclusion***

The quick facts above outline a success story for Missouri's information technology community. Weathering tough budget times and with little to no funding appropriated for new projects, information technology divisions within all departments continued to accomplish important objectives and exceed the number of *major* accomplishments identified in the previous year. It's important to remember that in identifying major accomplishments, each one of those accomplishments consists of many sub-tasks in order to get the job done.

In viewing the planned projects on the horizon for the 2004 calendar year, again the number increased over the previous year. This growth is expected to continue since information technology is now mainstream and a critical component in the delivery of Missouri's services to citizens. But an important reminder is that successful completion of these planned projects will be dependent upon adequate funding and support from the state's business community. From a statewide perspective, Missouri's information technology community continues to explore opportunities for consolidation and outsourcing, where appropriate, of its information technology infrastructure. This approach to potential cost savings will continue to be examined during the next calendar year.

A growing emphasis on information privacy and security continues and it is expected that 2004 will see more agencies assigning information privacy and security duties to a specific individual within their organization. Project management training and certification also continues as an important component to assuring Missouri's information technology projects are delivered on time and within budget. Impacted this past year by available training funds, it is expected the number of Missouri certified project managers will continue to grow at a steady pace over the next few years.

The accomplishments and challenges are many within Missouri's information technology community. The following department reports contained in this document will show the tremendous amount of work accomplished during 2003. Please review these specific department reports and discover the wide range of information technology accomplishments and future projects on the drawing board that will ultimately strive to improve Missouri State Government for its citizens.

*The 2003 State of the State IT Report can be downloaded at [www.oit.mo.gov](http://www.oit.mo.gov) and select "Reports and Plans".*

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Office of Information Technology

#### ***Overview***

The Office of Information Technology (OIT) serves as the focal point for the state's information technology issues, policies and initiatives. Directed by Missouri's Chief Information Officer, Gerry Wethington, the organization is responsible for areas such as IT policy, strategic planning, e-government, enterprise architecture and standards, to name just a few. Listed below are the highlights of the major initiatives supported by this office. Many of these initiatives cross multiple years and exist as ongoing projects within OIT and will continue into this next calendar year and beyond.

#### ***E-Government***

In 2003 the state's fiscal struggle continued to impact the availability of funds for e-government initiatives. Continuing to operate from funds reallocated from FY02, a limited amount of progress was possible to implement a technical infrastructure capable of end-to-end real-time online transactions. Alternative funding sources continue to be explored such as fee-based services for online convenience, the issuing of bonds as a source of operational revenue, and the ability to obtain copyright and sell software programs created by state staff with general revenue funds. A proposal is currently submitted for copyright and sales legislation for the FY05 session. Regardless of the shortage of funds for technical infrastructure, many agencies have moved ahead, whenever possible, in implementing online services through their own limited sources of funding. This fact is reflected in the number of accomplishments listed under each individual agency. Until the state's economic situation improves, e-government funds requests will be limited to those than can be made for federal funds.

Missouri's e-government portal continues to evolve with changes made in 2003 to improve the website's look and feel. New to the state portal is a dynamically updated news section. This feature provides the ability for Missouri State Government news to be current without web master intervention to submit articles. Through direction from the E-Government Business Oversight Committee, work continues toward the vision of a one-stop online process for starting and registering a business. This initiative involves the Department of Economic Development, the Department of Revenue, the Department of Labor and Industrial Relations and the Office of the Secretary of State.

An important aspect of Missouri's e-government initiative involves county and municipal government. As more services are brought online for Missouri citizens, expectations will grow for county and municipal governments to also offer online services. As an effort of the E-Government Business Oversight Committee, opportunities are being explored to partner with service providers who assist counties and municipal government entities in offering online services and their associated payment services.

As an effort to involve county and municipal government, the first Missouri Digital Government Summit was held on June 19, 2003. Hosted by the State of Missouri in cooperation with Government Technology, it provided a one-day executive leadership forum for county, municipal and state government staff to hear about digital government issues and share ideas for collaboration. With 380 registered participants, 60% represented state government, 15% county government, 20% municipal government and 5% from other sources. With support from the vendor community, the Missouri Digital Government Summit was held without cost to the government participants. A second summit is planned for June of 2004 with the same no-cost structure.

A significant accomplishment for e-government services was the procurement of a statewide credit card contract. The new contract will allow people to pay over the phone, via the Internet, or in person using American Express, Discover, MasterCard, or Visa. Prior to this contract, not all agencies were able to accept all of the four major cards. Managed by the Office of the State Treasurer, the volume of transactions leveraged by using this one contract will result in lower transaction fees to the state. Multiple options for payment within a secure digital environment will encourage citizens to procure services online.

### ***.Gov Initiatives***

In 2003 the .us domain used by Missouri State Government for its URL and e-mail was opened to public use. Simultaneously, the .gov domain, once reserved for use of federal departments and programs, was expanded to include state, county and city government as well. With the assurance that the .gov domain will be retained for use by governmental entities only, it was determined to move the state's Internet presence and standardize the e-mail addresses to the .gov domain. With this change, citizens can be assured that information and services obtained from a .gov domain website that they are dealing with a trusted governmental entity.

Standards were set for the .gov URL with missouri.gov or mo.gov serving as the primary and the agencies selecting an abbreviation prior to the primary, such as dnr.mo.gov for the Department of Natural Resources, to designate their respective areas. Migration to the .gov URL progressed during the 2003 calendar year with a deadline of December 31, 2003 for the agencies to have completed their website changes.

During 2003 an e-mail committee was formed to address statewide e-mail naming standards. The committee's recommendations were submitted to the IT Advisory Board (ITAB) and unanimously approved and published for implementation required by all departments. In order to provide a consistent, intuitive e-mail address for all state government employees it was determined that the right side of the @ will be @department.mo.gov. The left side of the @ will consist of a user's preferred name with the following attributes: firstname.lastname@. It was also determined that the new e-mail addresses will be available only on the state's intranet and role-based e-mail addresses will be made public on the state's portal. Implementation is to be complete by the end of FY04 and the old e-mail addresses will run concurrently until December 31, 2004.

The third mo.gov initiative, the Missouri Adaptive Enterprise Architecture's e-mail domain, conducted a survey of all agencies to determine details regarding their e-mail environment. Representatives from Microsoft, Novell and IBM have now provided feedback to the domain committee proposing various methods of statewide collaboration and consolidation. A review of those proposals is in the final stage at the end of this calendar year.

### ***IT Accessibility Standards***

The Office of Information Technology continues to work with the Missouri Assistive Technology Council and the Division of Purchasing and Materials Management to assure state compliance with the provisions of RSMo 191.863 and Section 508 of the Workforce Investment Act of 1998 regarding accessibility of information technology for individuals with disabilities. Members of the Digital Media Developers Group have developed a model plan to be used by agencies to review all existing websites to identify and resolve potential accessibility problems.

### ***Strategic Planning***

A planning session was held on October 29, 2003 to update the Statewide Information Technology Strategic Plan. Emphasis was placed on communication and improving alignment between the State Information Technology strategic direction and individual department strategic direction. Performance measures were used to support the strategic planning and goal setting. A business plan will be developed and used by agencies to identify opportunities to both cut costs and improve customer service.

### ***Project Management Initiative***

In an effort to ensure Missouri's information technology resources are proficient in managing the State's information technology projects, the Project Management Standing Committee has developed a continuing education and certification program. This program is currently being reviewed by the Information Technology Advisory Board (ITAB) and will be implemented in January of 2004. The Project Management Standing



Committee in cooperation with staff from the University of Missouri are working to develop a program to use one of the University MBA programs to scope the work requirements that will monitor and track work done in the various program management areas of the Missouri Value Assessment Program, risk management, performance management, and project oversight.

- ❑ ***Performance Management:*** The Performance Management committee has completed part I of a three-part document that will be the reference model or standardized framework to measure the performance of major information technology initiatives and their contribution to program performance. The performance reference model connects work on the technology side of a program such as upgrades or consolidated systems to outcomes on the service side. Work has started on Part II that will be the processes and templates and is scheduled to be completed this year as well as Part III that will be the appendices to the document.
- ❑ ***Risk Management:*** The Risk Management Committee has completed a draft Risk Management Manual that is being reviewed by the Information Technology Advisory Board at this time. The manual will be presented at the January 2004 ITAB meeting for final discussion and approval by ITAB. Upon completion of this vitality process, the manual will provide a standard process and reporting procedure that will be used by all information technology agencies when submitting Form 5 decision items for all IT related projects.
- ❑ ***Missouri Value Assessment Program (MOVAP):*** The Missouri Value Assessment Program is a methodology developed to provide a common budget methodology across all agencies and assist in determining whether the cost to create, implement and maintain a project is greater than the value/savings returned to state government and ultimately the citizen. While some business projects will truly generate a fiscal return on investment, others will only generate goodwill or better service and improved citizen satisfaction. This program is designed to uncover these issues and contribute to fully informed decisions.

With the methodology approved by ITAB, the program continued to evolve during 2003 under the direction of the Project Management Standing Committee. With four other business areas now included within the project management umbrella, it became clear that an IT application is necessary to make the data entry and calculations easier for the end user with the goal of gathering pertinent information once rather than multiple times across these five business areas. Due to the lack of funding available to move this application development effort forward, a proposal has been submitted with the University of Missouri's School of Business for a graduate student project. This project will encompass a scoping of the effort needed to create the online application and provide a reality check with the agencies. It will be determined in January of 2004 if the project will be chosen and work will be completed during the 2004 calendar year.

## ***Oversight of Missouri's Information Technology (IT) Projects***

Statistics regarding national failure rates of IT-related projects are staggering. At the turn of the century, IT advisory groups such as Gartner Group, Meta Group and the Standish Group reported the following regarding IT-related project performance:

- ❑ More than 80% of IT-related projects are late, over budget, lacking in functionality or never delivered
- ❑ 30% of projects are cancelled
- ❑ 75% of projects are late
- ❑ Less than 2/3 of the original scheduled features/functions make it to the end product
- ❑ Cost overruns average nearly 200%
- ❑ Schedule overruns average over 200%

*Public sector and state government IT projects are not protected from these project failure warning signs.*

Project Oversight provides many important service components for protecting Missouri IT-related projects from becoming statistics such as those above. The key components to any project's success are to reduce project risks and ensure that the intended business result be completed on time and within budget.

The Office of Information Technology serves as the focal point for the statewide IT Project Oversight Program by developing policy and providing reviews for project oversight compliance. The goal of project oversight is to protect the state's interest and investment in IT by managing risks to project delivery. The program specifically focuses on evaluating and communicating overall project performance on a regular basis to provide confidence that the project will satisfy the intended business result, and be completed on time and within budget.

The primary focus of the program is the state's most significant IT projects. These IT projects are designated as significant due to one or more project characteristics or factors such as high cost, high business criticality, legislative mandates, administration policy importance, revenue generation, and/or high public profile. These significant IT projects represent, for the most part, those new automation activities that must succeed in order for Missouri State Government to continue with significant portions of its day-to-day business operations and the uninterrupted delivery of critical program services to the public.

Failure of any one or more of these significant IT projects would have substantial consequences for the state including, but not necessarily limited to, monetary losses, service and/or service level disruptions, loss of public confidence in state government,

loss of credibility by state government, failure to meet legislative mandates, missed opportunities to advance the administration's programs and policies, and many other equally severe and/or undesirable effects.

In addition, the statewide IT Project Oversight Program strives to ensure that reasonable and prudent oversight is performed on all other IT projects in Missouri State Government. Failure of these other IT projects, while not resulting in the same substantial difficulties and/or losses for the state as would the failure of one or more of the significant IT projects, would still have an adverse impact on state business operations and service delivery.

Large projects bring with them many complex issues and difficult tasks. By implementing an oversight approach that combines project status assessment, monitoring and reporting, state agencies and departments have recognized successes in the areas of improved management of project elements, early detection of project needs, identification of interrelated problems, encouraged communications, and project inventories to provide an efficient means to apply "best practices" and "lessons learned" to future projects. The statewide IT Project Oversight Program has become an integral part of IT projects and is providing a service that should greatly increase the probability of overall project success.

### ***Network Management***

The Network Management Consortium facilitated a statewide Satellite Communications Request for Information (RFI). After reviewing the responses to the RFI, the consortium decided two Requests for Proposals would be required with one addressing fixed satellite communications and the other addressing mobile satellite communications. An immediate need was identified for fixed communications and members of the consortium appointed the Office of Administration to take the lead in compiling a list of requirements submitted by individual agencies and begin preparation of a Request for Proposal (RFP) for the fixed portion. The RFP for fixed satellite communications has been completed and forwarded to Purchasing and Materials Management. Work on the RFP for mobile satellite communications is scheduled to begin the first quarter of 2004.

### ***Performance Reference Model***

New initiatives this year include the development of a performance reference model that agencies will use to determine how their information systems help the performance of their mission. The performance reference model connects work on the technology side of a program, such as upgrades or consolidated systems, to outcomes on the service side, giving agencies the ability to measure how new projects improve services.

### ***Information Sharing & Data Exchange Among MO's Justice Agencies***

An important goal for Missouri State Government is to store data more cost-effectively and to share information more efficiently within and between justice agencies. Courts and public safety agencies are striving to integrate justice systems in response to the

increase in public demand, being driven at the local level, for accountability, effectiveness and responsiveness. There are increased expectations regarding the ability of justice agencies to proactively respond to community needs with high-risk and repeat offenders. And, there is increased public demand for electronic access to information and services as well as the need for extended hours of operation.

With this objective in mind, the Office of Information Technology serves as an advocate for justice agencies, identifying technical and administrative standards to promote information sharing and determining the most prudent way to fill data exchange gaps. Collaboration between state and local criminal justice agencies in planning for and addressing common control standards, equipment interoperability, capability, and resource needs are vital.

The Office of Information Technology serves in an advisory role to provide vision, strategy, policy approval and oversight for development and implementation of agency, law enforcement and juvenile and family court information sharing. Those efforts include:

***Criminal Justice Information Sharing Project*** sharing information at all levels of government within the state and all disciplines within the justice community to ensure more complete, timely information is available to the criminal justice system for the important decisions that shape people's lives and the safety of our communities.

***Driving While Intoxicated (DWI) Tracking System*** integrating systems and sharing information between the courts and justice, public safety and licensing agencies to provide data on DWI offenses by geographical location, sanctions, and demographic groups. The ability to collect and analyze this data will enable the Office of Highway Safety and other agency program initiatives to be targeted more effectively throughout the state, resulting in more efficient use of dollars and improved program results.

***Transition from Prison to Community Initiative*** sharing information between justice, public safety and social service agencies to improve offender assessments and implement effective case management. The potential advantages of aggregating data about offender assessments are compelling and provide the ability to integrate transactional, geospatial and demographic data to optimize public services.

***Juvenile Justice Information Sharing System (MOJJIS)*** sharing information between agencies, juvenile and family courts for better assessment, intervention, and tracking of juveniles across agency boundaries. Data sharing will reduce duplicate services and provide more appropriate treatment during a juvenile's contact with the agency. The sharing will provide evaluation and outcome data for youth in various programs to help determine program effectiveness. Through information sharing, MOJJIS will enhance services and support efforts to reduce

youth violence, allow data collection and improve the administration of justice by maximizing the effectiveness of executive and judicial branch resources.

### ***IT Mentor Program***

Initiated during 2002 by the Information Technology Advisory Board with assistance from the Office of Information Technology, an IT mentoring program was developed to address the need for knowledge transfer for incoming department CIOs. During 2003 this web-based program, with its resources and forms, was established on the OIT website under the “members only” category. During 2003 four agency CIO positions were filled and two of the four new CIOs are receiving mentoring services from experienced CIOs within Missouri State Government.

### ***Missouri Youth Cabinet***

Formed by Governor Holden in 2002, the Missouri Youth Cabinet is comprised of forty-five young Missourians so that they could voice their ideas about how to make Missouri a better place. Two students, Kathleen Fitterling of Warrensburg and Steve Rogers of Des Peres, MO, work with Gerry Wethington on information technology issues. During 2003 a Missouri Youth Cabinet website was created and is now available at <http://go.mo.gov/youth/myc/>.

### ***Executive Orders***

During 2003 two executive orders were signed by Governor Holden that directly impacts the Office of Information Technology. Summaries of those orders are:

- ❑ Formalize the Office of Information Technology and provide authority for the Chief Information Officer to establish state technology standards and policies that make the state’s information technology processes more effective, efficient and secure.
- ❑ Authorize the Chief Information Officer to develop a cybersecurity policy and make it a prominent element in Missouri’s information technology plan, while ensuring that the issue of privacy is properly considered.

### ***Homeland Security***

The Office of Information Technology continues to be involved with the statewide effort by participation in several of the homeland security committees. Representatives from OIT serve on the Missouri Security Council and the Deputies Council and OIT leads the cybersecurity and business continuity committees.

### ***CIO and ITAB Website Project***

The Office of Information Technology maintains a website to help bring the power of the IT community's ideas and strategies to the forefront. The comprehensive website provides an efficient and effective means to share statewide policies, processes, best practices, lessons learned, and other information with the state's IT community. Additionally, the site provides access to information about the Office of Information Technology and the many statewide initiatives under its direction.

### ***Consolidated Purchases Program***

The Consolidate Purchases Program allows all state agencies to take advantage of desktop PC and laptop volume purchase opportunities under the Prime Vendor contract. All agencies, whether large or small, can purchase products at the best possible manufacturer discount. Once an agency has placed an order for a product, other agencies can take advantage of the particular discount pricing, provided the same product specifications are needed. If planned ahead, agencies can coordinate their buying needs by consolidating purchases into one order to achieve steep discounts with more flexibility on product specifications. The IT Advisory Board (ITAB) website allows agencies to communicate their planned purchases with other ITAB members and to view lists of agencies planned purchases.

### ***IT Research and Advisory Services Contract Management***

The state employs IT staff that requires rapid access to information and analytical/advisory services as part of their business functions and work responsibilities. It is expected that such decision support services will aid in better decision making and save valuable research time and associated costs. High quality information and advisory material is needed at the strategic and tactical levels to assist in; policy-making, resource planning and management, project development, management and evaluation, vendor assessment, purchase decisions, contract negotiations and industry trend analysis.

The Office of Information Technology established a contract to acquire services to help the state departments and agencies achieve operational success through the intelligent and efficient use of technology. The office expects to gain economic and operational benefit in contracting for information and advisory services that satisfy project and individual staff needs.

### ***Enterprise Architecture***

A continuing effort for the Office of Information Technology is the development of an enterprise architecture that facilitates business system sharing across departmental lines of responsibility. Much of the groundwork was laid in the previous two years with 2002 seeing the adoption of the Missouri Adaptive Enterprise Architecture (MAEA) Manual.

This manual provides a methodology by which the information technology community develops architectural standards.

Already underway going into 2003 was the Security Domain Committee. Through the efforts of the Security Domain Committee in cooperation with the Office of Information Technology-led Cyber Security Committee, five security policies have been established and two products related to virus protection have been implemented. Encryption is now being addressed by the Security Domain Committee and will result in a common, statewide solution as opposed to multiple encryption solutions that were being considered.

Formed in 2003 as a SWAT team approach for a specific area of enterprise architecture is the E-Mail Domain Committee. With the state's current budget shortfall, consolidation and standardization of e-mail across all state agencies was identified as the source of potential savings for Missouri State Government. Charged with researching this issue and bringing a recommendation to the Architecture Review Committee (ARC), the E-Mail Domain Committee is in the process of completing the research and making final recommendations.

Convened during 2003 was the Geographic Information Technology Domain Committee (GIT). This committee's work has consisted of consolidation of a product inventory and standardization on a single GIS product. GIS standards are now being developed and will result in GIS systems and data that are consistent across all state government entities and readable by state government and the public.

Newly formed in late 2003 are the domain committees of Infrastructure and Integration. Work is just now beginning in these domain areas and both committees will have results to show in 2004.

For more information regarding the State of the State IT Report contact:

Missouri Office of Information Technology  
Truman Office Building, Room 560  
PO Box 809  
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[www.oit.mo.gov](http://www.oit.mo.gov)

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Office of Administration

## **Accomplishments**

### ***TECHNOLOGY SERVICES***

#### ***MO.GOV URL Initiative:***

Implemented changes necessary to address the state's web sites with the new "mo.gov" and "missouri.gov" URLs replacing the "state.mo.us" URL. These changes were the result of standards set forth through the OIT.

#### ***MO.GOV E-mail Initiative***

Worked with state agencies and OIT to begin implementation of changes resulting for the new OIT email naming standards.

#### ***SPAM Control***

Implemented SPAM control on most mail coming into the state's email systems. The control system examines mail as it enters the network and marks it as possible SPAM. All mail is still delivered to its intended recipient. The recipient has the option to ignore the Spam markings or take whatever action is deemed appropriate.

#### ***Redundant Internet Access Point***

During 2003 a location for a redundant Internet connection was selected and design work was completed. This second access point will be used for redundancy and will also be used for balancing of Internet traffic.

#### ***VPN Service***

In early 2003 Technology Services began providing VPN services for state agencies. This service replaced a service previously provided by Genuity Managed Services that filed for bankruptcy.

#### ***SDC Physical Infrastructure***

A number of physical infrastructure projects were completed in FY2003 to the 20 year-old infrastructures of the HST and EDP Buildings. The primary project was to purchase



a new generator for the HST Building and connect in the computer room and supporting systems such as air conditioning, etc. The generator system also stores enough fuel to process for four to five days, which will allow for refilling of the tank to occur. Other projects included replacing 20 year old air conditioners, replacing old and failing batteries in the Uninterruptible Power Supply (UPS) systems, adding in a make-before-break electrical switch in the EDP Building system, installing transient voltage surge suppression units in both buildings, installing a new environmental monitoring system, installing new water detection sensors in specific areas and improving logging capabilities of the EDP UPS system.

### ***Mainframe Upgrades***

During 2003 the Data Center upgraded the mainframe operating system to zOS. This upgrade allows applications to take greater advantage of the 900 series architecture. Websphere and CICS were also upgraded to the latest release to support new applications customers are developing.

The CPU that supports Department of Social Services and the Highway Patrol was upgraded from a 900 to the new 990. This CPU is called the "TRex". By having a TRex we can install blades that are actually Intel processors. The initial configuration will be for 28 processors. This could lead the way for hosting server applications in the future.

### ***Implementation of the Network Transport Contract***

The wide area network transport contract awarded to Southwestern Bell Communications in August 2002 was implemented to replace the state's private integrated data network (IVDN). This project eliminated all but 4 nodes of the IVDN, thus requiring agencies to physically move to a new transport. The SBC contract provides frame relay and ATM services which are very cost effective. Many agencies were able to upgrade their infrastructures at the same cost they had been paying for the IVDN transport. The IVDN will remain in place for several more years to provide voice and low speed analog data transport.

### ***Contracting efforts***

Several statewide contracts were awarded or amended in 2003. The cellular service contract was amended to add additional calling plans. The paging service was bid and awarded to various vendors. An award for telephone equipment was made to Sprint. The videoconferencing equipment bid is currently being evaluated and should be awarded by the end of the year.

### ***Missouri Results Initiative Project***

The Deputy Director of the Office of Administration and the Director of Information Services sponsored a Missouri Results Initiative project. This project focused on reducing telecommunications costs for the agencies. Customers and a service provider participated in the project along with Telecommunications staff. The results of the project were several recommendations: longer term contracts for better pricing, including telecommunications availability in the evaluation criteria for rental property, and auditing of agency telecommunications bills. The latter idea resulted in a document of "Best

Practices” for the agencies to use in a self-audit. The document is being distributed with the November 2003 bill.

### ***Billing System Review***

A team was formed to evaluate the efficiency and effectiveness of the current system used to re-bill customers for telecommunications services. The current system is thirteen years old and written in IDMS that we no longer support. Numerous companies that sell telecommunications management systems provided information to the team. The result was a RFP that is currently on the street. Award and implementation will be in 2004.

### ***Plexar Agreement***

Southwestern Bell Communications presented a new Plexar agreement to the state for those areas where they provide local service. Two options were evaluated and the 7-year option was executed. This followed the recommendation of the MRI project (longer-term contracts). The 7-year agreement had the potential of \$1,200,000 annually, assuming the line count remained constant. The minimum line count to qualify for the contract rate was made a statewide count, rather than based upon location.

In addition to negotiating the new state contract Telecommunications was able to obtain a new contract for Metropolitan Community College in Kansas City. This contract removed Metro from the state contract and reduced the state’s expenses to support the college. Metro maintained the rate that they had previously been paying the state.

## ***MISSOURI TECHNICAL TRAINING AND EDUCATION CENTER (MOTEC)***

MOTEC is dedicated to promoting information technology (IT) training throughout state government and facilitating access to IT training and education for approximately 1,450 IT staff. MOTEC provided 2,382 IT state staff with 4,302 days of classroom IT training. This provides convenient, quality training with cost savings to the state by not having travel expenses for staff in the local area.

MOTEC has coordinated statewide access to contractually provided computer-based training. MOTEC has also developed an in-house, centralized development base for web and network computer-based training.

## ***SYSTEMS AND PROGRAMMING***

### ***Statewide Advantage for Missouri (SAM II)***

The latest release from the software vendor, American Management Systems (AMS), was installed in a test environment for functional and upgrade analysis. The 3.x version is web based and was developed using a third party tool (Versata). The Versata tool was

purchased and technical staff attended training. AMS has not released an operational version of 3.x to be installed on the mainframe.

There was a continued optimization effort for both Human Resources and Financial components of SAM II. Many of the high volume HR Data Warehouse tables were partitioned by payroll run number and separated by fiscal year to make the end user queries more efficient. Also, many data archival jobs were run for Financial to reduce the data and increase overall efficiency. Some of the accomplishments regarding SAM II in this previous year were:

- ❑ Staff worked extensively with the Department of Natural Resources to optimize and tune their queries and DB2 views.
- ❑ A Warrant Intercept project began in Financial. New programs are being written to intercept vendor checks that the Department of Revenue has flagged for vendors owing state taxes.
- ❑ Major improvements were completed to automate the reconciliation between HR, Financial, and the Data Warehouse.
- ❑ Provided an automated process for the Division of Personnel's Uniform Classification and Pay (UCP) conversion for the Division of Gaming. This saved many hours of manual entry.
- ❑ Provided an automated process for a department-wide conversion for DOLIR's pay locations in HR, saving DOLIR many man-hours of work.
- ❑ Assisted agencies with Financial Workflow issues.
- ❑ Installed a major Fixed Asset upgrade and created conversion process to clear and recalculate depreciation.
- ❑ Loaded the 2004 health care rates and plans as well as the cafeteria plan deductions.
- ❑ Converted many vendor interfaces from a physical tape to FTP as requested by the vendors.
- ❑ As mandated by legislation, an automated process was developed in HR to create the pay increase transactions for employees making under \$40,000 so that they would correctly be reflected in the Employee History tables of the Data Warehouse.
- ❑ Assisted the Departments of Social Services and Natural Resources for an automated process on their FYE mass reorganizations. Almost 8,000 employees were affected in HR.
- ❑ Made changes as requested by the Data Warehouse Users Group.

- ❑ Developed new reports as requested by STAC (State Training Advisory Council) and SHRMC (State Human Resources Management Council).
- ❑ Loaded 2004 Charitable Campaign deductions.
- ❑ Adjusted MCHCP health care deductions to make them 2 weeks lag instead of 4.
- ❑ The server that supports our budget system (Brass) was successfully updated with failover capability.
- ❑ Developed an application in Access for the Division of Personnel to track retirees under the 2003 incentive retirement plan.
- ❑ Created FYE programs that were used to clear documents by type and dates off the Financial Suspense File. This replaced a tedious weeklong manual process performed by multiple staff members.
- ❑ Migrated the Temporary Assistance for Needy Families (TANF) payment process from the Department of Social Services to the Department of Economic Development (DED) by setting up several hundred new SAM II vendors, EFT records, and testing DED's payment interface.
- ❑ Rewrote and tested purge programs for the vendor, payment, receivable, and purchase order files. The Financial baseline code was inefficient and would have run several days. The rewritten jobs run in only a few hours and are more cost efficient.
- ❑ Participated in the statewide disaster recovery drill. Staff tested and documented recovery procedures for HR and Financial.
- ❑ Assisted the State Treasurer's Office in developing the in-house (CMIA) check process.

### ***WEB Projects***

- ❑ Developed/modified Pages for:
  - Homeland Security
  - State Portal
  - Youth Cabinet site for the Governor's Office
  - Lt. Governor
  - Shape Up Missouri
  - Office of Information Technology (OIT)
  - Technology Services
  - Office of Equal Opportunity (OEO)
  - MOTEC
  - Statewide Telephone Directory
  - State Print Shop

- ❑ The FY 2004 Executive Budget was posted to the Web for fast and easy viewing.
- ❑ Created a new web site for the Children's Services Commission.
- ❑ At the request of the Department of Mental Health, a 90-day project initiative was started to develop a web site to track telecom orders placed in the Telecommunication Section of Information Services for on-line inquiry by the agencies. A prototype was completed for approval that will allow agencies to inquire on the status of their orders.
- ❑ An automated State News Feed capability was added to the Portal to allow agencies to post press releases and other public messages.
- ❑ Search functionality was added for meeting minutes, policies, and procedures, to the Information Technology Advisory Board (ITAB) site.
- ❑ Setup an Intranet site for the Division of Facilities Management.
- ❑ An Employee Suggestion Form was implemented as requested by the Division of Personnel. Employees statewide can submit their ideas for cost savings and improvements via the Internet.
- ❑ Worked with Administrative Hearing Commission to upgrade their application and moved it to a new server.
- ❑ A Job Seeker Application was developed for the Division of Personnel to allow the public to seek and apply for jobs.

### ***Fleet Information System (FIS)***

FIS was a new system that was implemented July 1, 2003. It was developed in-house as a web based system using the Computer Associates' Advantage:Gen case tool. It was the first system implemented into production in the state using Advantage:Gen 6.5.

- ❑ FIS provides one central system to track and inventory all state owned vehicles. FIS also provides an automated fleet tracking system for state agencies that currently do not have an automated system.
- ❑ FIS was developed for the Division of General Services as mandated by recent legislation.
- ❑ FIS provides reconciliation with the Department of Revenue's Vehicle Titling System.
- ❑ FIS provides annual federal reporting required by the Department of Natural Resources.

- ❑ FIS captures data needed to document the cost of owning and operating each state vehicle to aid in the efficient and cost-effective management of the fleet.
- ❑ The centralized system can be used by all agencies across the state to track repairs, maintenance, fuel consumption, usage, etc.
- ❑ FIS provided the agencies with the capability for an automated conversion of data and also ongoing interfaces for fuel usage, maintenance, etc.
- ❑ Reports were added to MOBIUS (statewide on-line reporting system) to allow agencies to easily read and print reports.
- ❑ Changes were made to OA's Vehicle Maintenance System to interface with FIS.

### ***Surplus Property System***

A project was started to develop a new system for Surplus Property to better automate the inventory and invoicing, reduce double entry and manual processes and become compliant with SAM II Financial in areas such as inter-agency billing.

- ❑ The system will also interface with the new Fleet Information System to better track vehicles and their final disposition.
- ❑ The system will be developed in-house using the Advantage: Gen case tool.
- ❑ The project is currently in the requirements definition phase.

### ***Telephone Billing System (TBS)***

An RFP was issued to replace the existing system. A decision was made to look for 'canned' software solutions. The new solution should include additional business functions such as order processing, invoice and billing reconciliation, and better reporting. Once awarded, the Division of Information Services will be responsible for conversion out of IDMS to new system. This replacement process was a result of a Missouri Results Initiative (MRI) that reviewed the current telephone billing unit process.

### ***OA Server Consolidation***

The majority of Office of Administrations servers have been moved to the State Data Center in effort to consolidate the support of server's department-wide.

- ❑ The consolidation project centralized the support, provided a secure environment, obtained backup power capabilities, and became a part of the departmental disaster recovery plan.
- ❑ Software residing on the servers was reviewed for consolidation among the various servers.

- ❑ Completed Memorandums of Understanding (MOU) with all effected divisions.

### ***Imaging***

Installed an Imaging Web Application for Personnel to allow agencies to view imaged employment applications via web browser.

### ***Management and Applicant Information Resource System (MAIRS)***

- ❑ Provided research to the Division of Personnel on the system's Reinstatement Register processes.
- ❑ Completed mass conversion process for various records due to the FYE reorganizations at the Department's of Social Services and Natural Resources.
- ❑ Changes were completed in the Mailing Manager area of MAIRS to save postage costs.

### ***Risk Management System***

Several changes were made to remain compliant with the Division of Workers' Compensation (Department of Labor and Industrial Relations). One such change was the creation of a new automated report to measure modified duty savings as a result of the Early Return to Work Program and modified existing reports to reflect modified duty activity.

### ***Lease Management System (LMS)***

Completed a project to develop a Cost Allocation interface into SAM II Financial. The interface will update any changes that occur within multi-tenant leases related to the percentage of square foot occupied by each tenant. This information is critical in the billing of multi-tenant utilities and janitorial costs and changes frequently. This has become an issue as more agencies share space due to budget implications.

- ❑ Created a new area in the system to store information needed in the SAM II Financial REPV processing. Leasing staff was retrieving data from LMS and combining it with other data on Excel spreadsheets to obtain information needed for the Recurring Payment Voucher (REPV) processing. They can now obtain all REPV data needed in the Lease System.
- ❑ Completed changes in the contract processing functionality of LMS to allow the Division of Facilities Management to encumber funds for leases in SAM II Financial.
- ❑ Completed conversion process for Lessee records due to the FYE reorganization in the Department of Social Services.
- ❑ Created Focus master files to allow end users ad hoc reporting capabilities.

### ***State Data Center Billing (SDC) System***

- ❑ Programming changes were completed and new programs developed to capture and bill Websphere charges on the mainframe.
- ❑ Changes were made to collect usage records on the public LPAR for mainframe classes being taught by State Fair Community College.
- ❑ Completed changes to successfully bill Virtual Private Network (VPN) charges.

### ***Office of Equal Opportunity (OEO) System***

Several programs were rewritten to optimize the performance and reduce costs and run time.

### ***E-Government Initiative***

Work continues with the agencies in making more state services available via the Internet. At the present time an inventory of E-government services is being compiled to conduct a discussion on how we can better market these services to the citizen. Work continues on coming up with a self-funded model to build our Infrastructure and Portal. Work has begun on looking at solutions to provide government services across state, county and municipal governments with a shopping cart concept for payment. Work continues on a one-stop concept for the registering of a new business. The one stop concept would allow a single entry point for all of the activities associated with starting a new business. Agencies currently involved in the discussion are Revenue, Department of Labor and Industrial Relations, Secretary of State and the Department of Economy Development

## **Planned Projects**

### ***TECHNOLOGY SERVICES***

#### ***Redundant Internet Access Point***

During 2004 the redundant Internet connection will be installed, tested, and placed in production.

#### ***Managed WAN Services***

In November of 2002 OA participated in a project that was an attempt to promote sharing of data network facilities in common buildings known as Service Centers. OA provided the technical support and planning and installed a single data circuit between two service centers in the St. Louis area and the Truman Building in Jefferson City. That project lead to the formulation of another project to determine the feasibility of Technology Services providing a managed wide area network (WAN) service. This service offering should provide participating state agencies with a frame relay backbone centered in Jefferson City to which their remote sites can be connected while offering the potential for cost savings for all agencies involved. Edge device configuration, management, and



monitoring should also be offered. The planning for this service offering began in 2003. During 2004 a Managed WAN Service offering will be developed and implementation should begin.

### ***Satellite Services***

In 2003 Technology Services worked with the Division of Purchasing and multiple state agencies to develop an RFP for the acquisition of Satellite data communications services. During 2004 a contract should be awarded for Satellite services. The administration of this contract will reside in Technology Services. The contract should allow multiple state agencies to acquire satellite data network communications in remote areas of the state where it is difficult to reach or cost prohibitive with conventional communications facilities. Satellite services could also be used by agencies in their business continuity and disaster recovery plans.

### ***Ethernet/MAN***

Technology Services has been working with Sprint for approximately 1½ years to provide an Ethernet option in the Metropolitan Area Network (MAN) service. We have been working with Sprint to iron out technical issues and have contacted several agencies to help with Alpha Testing to begin in the first part of 2004. The service should be available sometime in FY 2005.

### ***Wireless Campus Network***

Technology Services has been researching different methods of providing network connections to the campus and other critical locations in Jefferson City in the event of a disaster or extended outage. We believe the best current option is wireless connections between the buildings in the campus. During 2004 engineering and feasibility studies as well as network design should be completed. Implementation should also begin. This project is dependent upon funding.

### ***SDC Physical Infrastructure***

Future projects include the replacement of the UPS system in the HST Building, replacement of fire suppression systems in both the HST and the EDP buildings, redundant air conditioning systems for both of the UPS rooms as well as the HST computer room, replacement of 20 year old power distribution units in the HST building, improved security systems and additional CCTV monitoring of additional critical sites. Most of these projects are dependant upon Homeland Security funding.

### ***Printer System Upgrade***

With the increase in duplex printing requirements, the existing printer systems will be upgraded to provide redundant duplex capabilities, remove older cut sheet printer and replace 10-year-old cutters with new equipment. Project to be completed by February 2004.

### ***MOBIUS implementation***

Technology Services has provided a MOBIUS environment and will implement production for Department of Revenue and Department of Health and Senior Services. These projects will go into production in early 2004. Testing, procedures and policies have been discussed and implemented while the administrative functions of adding report and user definitions are currently being completed.

### ***Email Services***

Technology Services will begin an evaluation of offering to provide email services for other agencies. The first environment to be reviewed is the Exchange arena. A customer team will be formulated to help define the service components and the appropriate cost recovery structure. Desktop support of the office suite will be left with the agencies. A pilot is planned for early 2004.

### ***Centrex Agreement***

Telecommunications will work with Sprint to obtain reduced pricing for Centrex in those areas of the state where Sprint is the local service provider. A new contract is anticipated for FY05.

### ***Release Centers***

In conjunction with the Department of Corrections, Telecommunications will bid for collect calling services in the release centers in Kansas City and St. Louis. The current contracts have expired for these locations.

### ***1+ Dialing***

Currently the state has a contract with MCI for 1+ dialing. As a result of need to change the requirements for this service, a bid will be prepared in and implemented in 2004.

### ***Billing System***

The telecommunications management system bid issued in 2003 will be evaluated and awarded in 2004. Much of the time in 2004 will be devoted to migrating our business to the new system. Because it is a management system all phases of our business will be impacted. Order processing, as well as billing, will be modified.

## **SYSTEMS AND PROGRAMMING**

### ***SAM II***

- ❑ Complete the Warrant Intercept project. This will intercept checks to vendors that the Department of Revenue has flagged as owing state taxes.
- ❑ Implement changes to HR in order to be compliant with the federally mandated Health Insurance Portability and Accountability Act (HIPAA).
- ❑ Prepare for the next upgrade to version 3.x.

### ***Surplus Property System***

Complete the development project for a new web based system for the Division of Purchasing and Materials Management. It will be developed in-house by the Division of Information Services using the Computer Associates' Advantage:Gen 6.5 case tool.

### ***Purchase and Install New Telecom System***

- ❑ Award contract for new Telecom billing and ordering system.
- ❑ The objectives of the new system include: more efficient processes and less manual work; integrate the orders and billing processing; improve reconciliation and auditing; accurate billing; and an easier system to maintain than the current one.
- ❑ Work with awarded vendor to install new system.
- ❑ Develop conversion jobs to extract data from the current Telephone Billing System (TBS).

## **Accumulated Demand**

The Division of Information Services continues to have a number of projects scheduled, but due to smaller budgets and shifting resources the startups have been delayed. These delays, coupled with agencies looking inward for application development and server support due to smaller budgets, will increase the accumulated demand. The pending risk of layoffs will have a very dramatic impact on project completion and support of the requested sever environments. Most of the scheduled projects provide services across agencies on statewide bases.

### ***General Department Profile (2003)***

Department Name

*Office of Administration*

Street Address

City

Zip

*Capital Building, Room 125*

*Jefferson City*

*65102*

Main Phone Number

Main Fax Number

Website URL

*573-751-3311*

*573-751-1212*

*www.oe.state.mo.us/*

Department Director

*Jacquelyn D. White*

Number of FTE (entire department)

Approximate number of citizens served

*825*

*5,000,000*

Agency Mission (brief statement)

The Division of Information Services' mission is to provide quality data processing and telecommunication services, resources and solutions to support state agencies so they can fulfill their missions for the citizens of Missouri.

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Jill Hansen</i>		
Department CIO Name		
<i>Office of Administration</i>		
Street Address	City	Zip
<i>301 W. High Street</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-3338</i>	<i>573-751-3299</i>	<i>hansej@mail.oa.state.mo.us</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>Past ITAB chairperson, Vice Chair of Network Consortium</i>		
IT Division Name		Website URL
<i>Division of Information Services</i>		<i>www.oa.state.mo.us/dis/</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>185</i>	<i>MOTEC-3</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
Security Officer Name	Phone No.	E-mail
<i>R.D. Porter</i>	<i>573-522-8561</i>	<i>porter@mail.oa.state.mo.us</i>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	E-mail
<i>Gail Wekenborg</i>	<i>573-751-1504</i>	<i>wekeng@mail.oa.state.mo.us</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Jill Hansen</i>	<i>573-751-3338</i>	<i>hansej@mail.oa.state.mo.us</i>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Office Of Administration</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>IBM 2084 with zOS, UNIX, VM, Linux, MVS</i>
PC Servers	<i>NT, SQL, Windows 2000, Linux</i>
Mid-range	<i>AIX</i>
Networked	<i>NT</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows NT &amp; XP &amp; 2000</i>
Dumb terminal	<i>3270</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Dedicated and dial-up</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MoreNet and Socket</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAffee</i>
Desktop	<i>McAffee</i>
Internet	
Help Desk Packages (Magic, GWI)	
<i>GWI, TRACKIT, Wicket</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2, IDMS, Oracle, SQL, DB2 UDB, Domino, Supra, IMS</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, CICS, Advantage:Gen, Focus, Cold Fusion, WebSphere</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange, Notes</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>ELIPS, SMPE</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1, Point to Point, fractional T, FRX, ATM</i>
GIS (ArcView, MapInfo)

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Agriculture

#### **Accomplishments**

##### ***WEB Efforts***

With the continued emphasis on WEB access by the public, redesign and refreshment of the departmental web site continues to receive significant attention. The Ag Innovations Center web site was moved from an outside contractor to the Agriculture IT staff, reducing the cost of maintenance. A number of searchable databases were added to the web site as well as a feature for using fill-in PDF forms. New programs were written and implemented to automate the updating of searchable data files for web access on a daily basis.

##### ***Office Vision 400 Conversion***

IBM eliminated the Office Vision 400 product from the new version of the iSeries operating system effective with Release 5.1. The Department of Agriculture had made extensive use of the letter and form printing features of Office Vision 400 and therefore was unable to upgrade to new releases until this problem was solved. The conversion of all Office Vision 400 applications to Microsoft Word was completed during the current year. This allowed the successful upgrade of the iSeries operating systems to the most current release.

##### ***Security***

In an effort to provide additional security and improved bandwidth, a Cisco PIX firewall was installed at the State Fair in Sedalia.

##### ***Application Development***

- ❑ *Sam II Interface* – efforts continued in refining interface of data received directly from SAM-II. Line item budgeting is also being implemented.



- ❑ Developed new Timber Products Tracking and analysis system.
- ❑ Developed new Rendering Truck registration and tracking system.
- ❑ GIS and bio-terrorism programs were started in regards to Homeland Security.
- ❑ Coordinated efforts with Department of Conservation on Chronic Wasting Disease (CWD) tracking system.
- ❑ Developed a new Organic Certification and tracking system.
- ❑ Installed and implemented the EasyPrint Software product, allowing licenses to be printed on laser printers. Reducing cost of licenses and special forms by 50%.

Some of the planned application development was delayed due to priority requirements and until more resources become available.

### ***Help Desk***

Our help desk received 3080 calls for service, 2937 of which were completed by IT staff. Efforts are continuing to refine the help desk processes with the goal of providing improved response time and more efficient service.

### ***Enhancements to Existing Applications***

- ❑ The Animal Care Facilities Act system
- ❑ Boll Weevil tracking and collection system
- ❑ State Fair reporting systems
- ❑ Fiscal reporting
- ❑ Grants reporting system
- ❑ Aquaculture database

The continued changes in the departmental business processes require constant review and revision of existing systems to meet changing needs.

### ***New Technologies***

The expanded interest in wireless communications has triggered continued research into use of PDA's and more use of wireless laptop access. Three of our field inspectors are using laptops to print labels for hazardous materials shipment with UPS. Another three laptops are using wireless access during travel.

### ***Network Improvements***

- ❑ Partnered with Missouri National Guard to share bandwidth for the State Fair and Sedalia Armory, reducing overall cost and providing improved speed and services.
- ❑ Implemented new domain for Mo.gov initiative.
- ❑ T-1access installed for the Milk Board.

## **Planned Projects**

### ***E-Government***

The Department of Agriculture will participate in the statewide e-government initiative as funding and resources become available. Efforts have begun to develop standardization of data items across all division lines in preparation for meeting the needs and requirements of the e-government initiative.

### ***Common Core of Data***

Efforts are currently under way to create a data dictionary, identifying all data elements collected by the department, regardless of source. The next step will be to design and implement a common core of data that will provide a consolidated patron/client database for consistent collection of information for all patrons.

### ***Application Development***

The Missouri Ag and Small Business Administration (MASBDA), Seed Lab, Petroleum Systems and Line Item Budgeting enhancements are designated as priority systems for development during the upcoming year.

Continued enhancement of Geospatial Information Systems for homeland security will also be a priority project. Plans are under way to provide improved and increased detail of data layers. This will allow increased accuracy in case of a Bio-terrorism or animal health outbreak within the state. Efforts are also being made to provide more analysis and decision-making tools through the Geospatial Information Systems data layers.

### ***WEB Initiatives***

Continuing efforts are being made to increase the use of web-enabled applications. The development of a departmental Intranet is also planned.

### ***New Technologies***

- ❑ Use of imaging technologies will be expanded.
- ❑ Wireless technologies will be explored, particularly in the area of PDA's and laptops.
- ❑ Increased use of faxing from the desktop will be encouraged.
- ❑ Upgrade of old data base applications to more modern data base products is scheduled.
- ❑ Customer Relationship Management (CRM) technology will be explored and implemented as appropriate.
- ❑ Increased use of Geospatial Technologies will be explored.
- ❑ Increased use of VPN for field staff will be investigated.
- ❑ Continued updating of all printing of licenses using EasyPrint software.

### ***Security***

The department will continue to seek improved Anti Virus protection.

### ***Network***

- ❑ Hands free software installs and updates.
- ❑ Antivirus protection.
- ❑ Evaluate improvement in telecommunication speeds to laboratories using Frame Relay.
- ❑ Move applications from Novell platform.

### ***E-mail***

- ❑ Upgrade Lotus Notes from Release 5 to Release 6.

### ***Infrastructure review***

A major effort is underway to review all current hardware and programming development software. If appropriate, new hardware and development software will be selected when funding is available. The languages currently being evaluated are IBM's WebSphere and Microsoft .NET.

### ***Training***

With the constantly changing technologies and new features of software, the need for user and IT training has never been more apparent. Increased emphasis on training to gain the efficiencies of the improved technologies will be made. If new development languages are selected, an extensive training program will be required.

The implementation of a CRM system will require extensive user training.

## **Accumulated Demand**

We have 143 current open requests on our help desk, of which 79 are for major new systems development or system revision. We estimate the current accumulated demand would require between 18 and 24 months for completion. This assumes the unrealistic theory that there will be no additional requirements or projects requested.

Shrinking budgets and restricted resources continue to present a series of unique challenges to meet the increasing technological needs of the Department of Agriculture. A 20% reduction in staff has curtailed the development and implementation of some needed systems. The ever increasing need for IT staff with specialized skills, plus the need to retain qualified IT staff and training users to utilize the new technology continue to challenge all to find new and creative methods.

Information technology solutions are critical to the increased efficiency needed within government to improve service, deliver more web-enabled applications, and provide additional management decision systems.

<b><i>General Department Profile (2003)</i></b>		
Department Name		
<i>Missouri Department of Agriculture</i>		
Street Address	City	Zip
<i>1616 Missouri Blvd</i>	<i>Jefferson City, MO</i>	<i>65102-0630</i>
Main Phone Number	Main Fax Number	Website URL
<i>573-751-4211</i>	<i>573-751-5002</i>	<i>http://www.mda.mo.gov</i>
Department Director		
<i>Peter Hofherr</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>457</i>	<i>All citizens of the State of Missouri</i>	
Agency Mission (brief statement)		
<i>"To serve, promote, and protect the agricultural producers, processors, and consumers of Missouri's food, fuel, and fiber products."</i>		

<b>Department CIO and IT Division Profile (2003)</b>		
Department Name		
<i>Missouri Department of Agriculture</i>		
Department CIO Name		
<i>Larry Reynolds</i>		
Street Address	City	Zip
<i>1616 Missouri Blvd</i>	<i>Jefferson City, MO</i>	<i>65102-0630</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-3071</i>	<i>573-526-0530</i>	<i>Larry.Reynolds@mda.mo.gov</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
Small Users Group of Mid Missouri, COMMON. Mid Missouri Telecommunications Associations		
IT Division Name		Website URL
<i>Information Technology</i>		<i>http://www.mda.mo.gov/</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>9</i>	<i>None</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>0</i>	<i>None</i>	
Security Officer Name	Phone No.	E-mail
<i>Larry Reynolds</i>	<i>573-751-3071</i>	<i>Larry.Reynolds@mda.mo.gov</i>
Privacy Officer Name	Phone No.	E-mail
<i>None</i>		
ITAB Alternate Name	Phone No.	E-mail
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Larry Reynolds</i>	<i>573-751-3071</i>	<i>Larry.Reynolds@mda.mo.gov</i>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Agriculture</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Dell PowerEdge 2600 (GIS applications)</i>
Mid-range	<i>I-Series 400 Model 820          I-AS400 Model 600</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>XP-90 Window 2000-77 Windows 98-110 Windows 95-24 Linux - 1</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA to the State Data Center, IPX</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>Morenet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Cisco PIX firewall</i>
Desktop	
Internet	
Help Desk Packages (Magic, GWI)	
<i>Lotus Notes self written programs</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB 400</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>RPG IV</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Lotus NotesR5</i>	
Encryption Packages (SSL, PGP, etc.)	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>None</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T-1 three 56K dedicated one</i>
GIS (ArcView, MapInfo)
<i>ARCInfo 8.3 &amp; ARCIMS 4.0.1</i> <i>ARCGIS extensions (Spatial Analyst, 3D Analyst and Publisher)</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Conservation

#### **Accomplishments**

##### ***Network Operations***

- ❑ Installed 24 replacement servers Department Wide.
- ❑ Upgraded 3 Wide Area Network (WAN) circuits to field offices.
- ❑ Installed 4 new local area networks (LAN) and one upgrade; Kirksville/upgrade; Brookfield, Jackson, Salem and Branson were the new installs.
- ❑ Supported over 1,519 PCs, 38 LANs and 36 WAN locations across the state.
- ❑ Supported 1,430 e-mail users across four post offices statewide.
- ❑ Maintained an average 99.5% network availability throughout the year.

##### ***Desktop Support***

- ❑ Replaced 344 PCs with new Windows 2000 computers.

##### ***Help Desk***

- ❑ Processed 11,735 trouble calls through the Help Desk.
- ❑ Completed 2,691 maintenance trouble tickets on PCs across the state.

##### ***AS/400 Operations***

- ❑ The AS/400 at Licking remains in place while development is underway on an enhanced PC based “Nursery Operations System”. This system is expected to be finalized in 2004 with full implementation and retirement of the AS/400 in FY05.
- ❑ Supported an AS/400 print load of 33,121,344 lines.
- ❑ Supported an AS/400 workload of 321,502 jobs.

##### ***Application Development***

- ❑ Developed 3 new Interactive Voice Response (IVR) applications to support Waterfowl Area Reporting, Deer Telecheck, and Spring Turkey Managed Hunt. Maintained and supported a total of 5 IVR applications.
- ❑ Developed 5 new web applications to support Education Contacts, Protection Arrest, Property Inventory, CWD Database, and Radio Inventory. Maintained and supported a total of 8 web applications on the Intranet.



- ❑ Developed 3 new Access applications to support Property Inventory, Airport Fuel Usage, and Magazine Subscriptions. Maintained and supported a total of 21 Access applications.
- ❑ Maintained and supported 14 Visual Basic (VB) applications.
- ❑ Replaced 7 COBOL applications with new Windows/Web based applications to support retiring the AS/400 at the Central Office. Maintained and supported the remaining 2 COBOL applications on the AS/400 at the State Forest Nursery in Licking.
- ❑ Replaced 5 Clipper applications with new Windows/Web based applications. Maintained and supported the remaining 14 Clipper applications.
- ❑ Developed and supported 16 Access query and reporting databases to provide ad hoc reporting from MDC application data.
- ❑ Supported installation, customization, and operation of the HRIS and QuickSell commercial software packages.
- ❑ Maintained and supported 6 production databases in Oracle containing a total of 4667 tables and occupying approximately 66 gigabytes of storage space.
- ❑ Provided technical assistance, formatting, and posting of 15,545 pages on the MDC Intranet including HTML pages, Active Server pages, and PDF pages.

### ***Technology Training***

- ❑ Supported a total of 689 training opportunities for MDC employees.

### ***Voice Communications***

- ❑ Implemented “live” answer at all regional service centers, Columbia Resource Science Center and the Central Office in Jefferson City. This project, in response to public input, routes all public calls to a receptionist while employees or other business associates’ calls are routed via auto attendant. This project has earned the agency numerous positive comments from the public who in the past were annoyed with not speaking directly to a person when they called an office.
- ❑ Replaced six telephone key systems: Resource Science Center, Northwest Regional Office, Cassville, Branson, Bolivar, and Lake Paho.
- ❑ Installed new telephone systems at new MDC facilities, including the Busch CA Wildlife Office and Columbia Bottom CA maintenance shop.

### ***Wireless Communications***

- ❑ Replaced 83 mobile radios, 365 portable radios, and 6 base stations throughout the state, replaced 49 fixed repeaters in the Southeast, Central and St. Louis regions. Our equipment replacement is resulting in improved mobile and portable radio coverage in areas served by the tower sites.
- ❑ Installed twelve new fixed repeaters to provide radio coverage in the expanded regions resulting from department reorganization.
- ❑ Entered into cooperative agreements with local governmental entities (sheriff’s offices and rural fire departments) permitting them to use MDC towers at our Taum Sauk, Mudlick, Meta, and High Point sites.
- ❑ Established a new mobile radio equipment standard (Kenwood TK-790) after a field trial with department staff.
- ❑ Issued 7 requests for frequency coordination for new FCC radio station licenses, and

- 39 requests for license modifications.
- ❑ Implemented two long-term satellite communications tests for broadband Internet service at Hunnewell Hatchery and Dalton Shooting Range. These locations have poor data connectivity due to their remote locations.
- ❑ Increased height of existing communications towers to improve communications range at Warrenton, Kansas City and St. Louis regional offices.
- ❑ Completed an agreement with the U.S. Army Corps of Engineers to use tower space on their tower facility at Mark Twain Lake. Dismantled and stored a 195-foot guyed communications tower from Santa Fe (Molino Tower Site) and terminated a small acreage lease for our tower.
- ❑ Constructed four new large self-supporting towers to be used for fixed repeater sites at Columbia Bottom CA, McCormack CA, Price Bridge (Chariton County) and Midway (Boone County).
- ❑ Entered into cooperative agreements with the U.S. Fish and Wildlife Service, permitting them to improve their communications in Missouri by utilizing MDC communications facilities at McCormack CA (for Swan Lake NWR), Arrow Rock, and Warrenton for a USF&WS radio system for the Big Muddy National Fish and Wildlife Refuge).

## Planned Projects

- ❑ Replace the hatchery visitor information radio system at Shephard of the Hills.
- ❑ Developing software applications approved by Division Administrators in the FY 04 Technology Budget Review including, Turkey IVR Telecheck, Regulations/Lands Web Interface, Hatchery Management, Forest Cropland, Forest Inventory System, BMP Monitoring, Ag Crop Reporting, Crime Intelligence Interface.
- ❑ Upgrading additional mobile relays to narrow band capability or other formats as permitted by the FCC.
- ❑ Construct new base station towers at Kansas City and Columbia (Regional).
- ❑ Replace the telephone systems in six locations - Columbia (Regional), Rolla, Kirksville, Dalton Range, Neosho, and Chillicothe. Ongoing project to replace old telephone systems for which we have trouble getting parts, which have become maintenance issues, or which we have outgrown.
- ❑ Create and implement an IT inventory barcode system. This system will increase accountability by allowing us to record when an item is last inventoried and enhance accuracy of inventories by eliminating errors do to improperly recorded information.
- ❑ Implement Single Point Sign-on solution to allow users to use only one sign on ID and password for all applications.
- ❑ Upgrade Norton Antivirus Corporate Edition to Symantec Corporate Antivirus (version 7.61 to version 8.1).
- ❑ Convert remaining field sites from Token-ring topology to Ethernet.
- ❑ Assist Business & Support Services to implement a new automated Transportation system.
- ❑ Further development of the web-enabled Human Resources supplemental system that will provide additional functionality, including training records, applicant tracking, web-based benefit enrollment and drug testing.

## **Accumulated Demand**

- ❑ Continue upgrading of PC operating systems related to security concerns and bug fixes. Move all PCs to minimum platform of Windows 2000.
- ❑ Convert all radios in the system from wideband to narrow band capabilities.
- ❑ Data communication with remote offices where telecommunication facilities cannot provide needed quality or bandwidth.
- ❑ Wireless access points.

### ***General Department Profile (2003)***

Department Name

*Missouri Department of Conservation*

Street Address

City

Zip

*2901 W. Truman Blvd*

*Jefferson City*

*65102*

*P. O. Box 180*

Main Phone Number

Main Fax Number

Website URL

*573-751-4115*

*573-751-4467*

[www.conservation.mo.gov](http://www.conservation.mo.gov)

Department Director

*John Hoskins*

Number of FTE (entire department)

Approximate number of citizens served

*1,501*

*6,000,000*

Agency Mission (brief statement)

*To protect and manage the fish, forest, and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy, and learn about fish, forest, and wildlife resources.*

<b>Department CIO and IT Division Profile (2003)</b>		
Department Name		
<i>Missouri Department of Conservation</i>		
Department CIO Name		
<i>Douglas Young</i>		
Street Address	City	Zip
<i>230 Commerce Drive, Suite 201</i>	<i>Jefferson City</i>	<i>65109</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-522-4115 (x3112)</i>	<i>573-751-4865</i>	<a href="mailto:Doug.Young@mdc.mo.gov"><i>Doug.Young@mdc.mo.gov</i></a>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>Conservation Business Managers Association (CBMA)</i>		
IT Division Name		Website URL
<i>Information Technology</i>		
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>35</i>	<i>12</i>	
Total \$\$ value of FY04 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY04 IT requests funded	
<i>\$0</i>	<i>\$2,081,812.47 (IT Internal Budget)</i> <i>\$2,749,436 (Dept Technology Budget)</i>	
Security Officer Name	Phone No.	E-mail
<i>Jim Garr</i>	<i>X3580</i>	<a href="mailto:Jim.Garr@mdc.mo.gov"><i>Jim.Garr@mdc.mo.gov</i></a>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	E-mail
<i>Jim Lundsted</i>	<i>X3270</i>	<a href="mailto:Jim.Lundsted@mdc.mo.gov"><i>Jim.Lundsted@mdc.mo.gov</i></a>
SDC Steering Committee Rep Name	Phone No.	E-mail

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Conservation</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Intel Pentium with Windows NT Server /Windows 2000/Netware 5.1</i>
Mid-range	<i>AS/400 with OS/400</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 2000</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Frame Relay &amp; RAS Dialup</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Pix Firewall, Cisco Intrusion Detection, Norton AV, MIMESweeper, PornSweeper, Sophos</i>
Desktop	<i>Norton AV,</i>
Internet	<i>Websense</i>
Help Desk Packages (Magic, GWI)	
<i>Magic Service Desk</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2, Oracle, SQL Server</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, Visual Basic, Visual InterDev, Microsoft Access</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Novell GroupWise</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	

Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
Telecommunications (T1, Frame Relay, etc.)
<i>Frame Relay</i>
GIS (ArcView, MapInfo)
<i>ArcView, ArcInfo, ArcIMS</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Corrections

#### **Accomplishments**

##### *Information Systems Infrastructure*

As recommended by the 1999 Information Systems Infrastructure Review and the subsequent 2000 DOC Architecture Review, an infrastructure related decision item was submitted for funding for the 2003 fiscal year. The funding requested would have supported several of the recommendations made in the study. These recommendations included:

- ❑ Replacement of obsolete network and workstation technology
- ❑ Upgrade of data network wiring
- ❑ Implementation of data warehouse and user query capabilities
- ❑ Replacement/upgrades of legacy applications focusing on implementation of workflow and advanced application technologies
- ❑ Upgrade of existing AS/400 computing platforms

In fiscal year 2004, because of the state's severe budget problem, it was necessary to not submit any information technology decision items other than that required for core funding. As a result there was little progress made relating to the technical infrastructure issues that the 1999 study identified. Most information systems-related activity during 2003 focused on maintenance of the current infrastructure and existing applications. This approach will continue through all of 2004 and the first half of 2005. During fiscal year 2005 a review if the study's recommendations will be conducted and, assuming that funding becomes available in the FY06 budget, efforts in the second half of 2005 will begin to focus on the aggressive implementation of the study's recommendations that may remain appropriate.

It is widely recognized within the department that the obsolete technical infrastructure poses significant risk to its operations and to the well being of its employees and the offenders it supervises. It is also recognized that further postponement of allocation of the required resources will increase this risk and significantly increase the overall cost of



mitigation. If feasible, the department intends to aggressively pursue substantial resources in the FY06 budgeting cycle to accomplish this objective.

### ***Computer Applications***

During 2003 372 enhancements were made to the department's Offender Management System (OPII). These additions were made at the direction of a user steering group, the Information Quality Task Force, which meets on a regular basis to review and give direction regarding this key computer application.

A number of major changes to the Medical Assessment and Reporting System (MARS) were made in 2003. These include conversion of the medical information sheet from a proprietary Office Vision format to a database file format; establishment of HIPPA compliancy by implementing enhanced access restrictions and permissions; and, creation of OPII links to provide Custody staff with certain offender medical information. Additional progress included completion of analysis and design for a number of user-requested enhancements that are scheduled for implementation in the first quarter of 2004.

Several new applications were developed and implemented during 2003: Offender Booking/Program Scheduling, Offender Image, and two components of the Data Warehouse. In addition to these, the Version 2 upgrades were made to four new systems that had been implemented in previous years. These included the Visitation Management, Grievance Management, Injury & Property Damage, and the Training Management Systems.

The following represents some of the major application development projects that were also completed in 2003:

- ❑ Conversion of department vehicle data to the Office of Administration fleet management system
- ❑ Changes to the Offender Management System (OPII) required by Senate Bill 5
- ❑ Enhancements to Staff Files to add security to facilitate information entry by department staff (versus limited central staff) and enable a process for automated employee identification numbering
- ❑ Analysis, design and construction of changes to the Victims Notification System (VINES) necessary to interface with the vendor's new statewide system (all required program changes have been made but implementation placed on hold and will be made in 2004 when the vendor is ready)
- ❑ Ongoing development of reports from SAM II in support of department fiscal management and personnel staff, including major revisions to 62 pre-existing reports, design and development of 79 new reports and development of 102 ad hoc reports.
- ❑ Implementation of user requested enhancements that had been pending the conversion of the COI Hiring system from OfficeVision to Document Integrator

### ***Conversion from AS/400 OfficeVision***

In 1999 IBM announced that the current version of the AS/400 operating system would be the last that OfficeVision will function in. OfficeVision software has been necessary to provide electronic mail and word processing capabilities to the approximate 9,000 department users who do not have access to personal computers. Because the department's obsolete network infrastructure limits its ability to migrate to more functional computing platforms, there were a large number of users who continued to require electronic mail and document-processing capabilities similar to what OfficeVision had provided. Additionally, the document processing capabilities of OfficeVision were been highly integrated into the offender management application (OPII) and the offender medical application (MARS). Because of this it was necessary to acquire and migrate to a replacement product.

In 2002 the DeskMaster and Document Integrator products were acquired to replace most of the functions of Office Vision. During the same period a Document Management System was developed to supplement some limitations in the word processing and document management abilities of the selected software. Migration to the replacement software and transition from OfficeVision for word and document processing was complete by year-end 2002. Conversion of OPII and MARS data occurred in the 1<sup>st</sup> quarter of 2003 and migration to the new software was completed by the end of that period.

### ***Data Warehouse***

In 2003 the department implemented the first two components of its Data Warehouse: the Grievance Management and the Visitation Management Systems. To accomplish a successful implementation it was first necessary to commit resources necessary to establish a methodology for warehouse development and for management of the 'metadata' contained within it. The department relied on external knowledge and expertise from Tier Technologies to accomplish this. Because it has been highly successful, we began with the development methodology currently being used for structured systems and modified it to specifically support data warehouse development. Since it has been shown to be an essential element of project success, we mandated that the formal requirements for involving an Executive Sponsor, establishing and maintaining a fixed scope and following a top-down approach with formal sponsor approvals at each step were retained in the revised methodology.

Analyses of requirements for enhanced information retrieval from the Grievance Management System and the Visitation Management System were conducted. Data structures were defined and extraction techniques built to support the required information retrieval. To establish a basis for immediate usability, the scope of both projects included the development of core queries and templates for parameter driven queries that the customers could produce valuable results at day one of implementation. Part of the scope of the projects included a commitment to limited follow-on support in

the use of the tools and subsequently several users have rapidly developed enhanced skills for warehouse access.

### ***Image Processing***

In 2003 the department implemented the Offender Image Management (OIM) System. This project involved the design and development of computer programs to support retrieval of images from digital cameras and the transfer and incorporation of these images into the central repository, as a linked component of the Offender Management (OPII) database. Capabilities implemented in 2003 include transactions for the collection and display of images of offenders in institutions, and the ability to produce full color 'face sheets' for offenders via OPII transactions. This application is based on J2EE Java technology and runs on the Websphere Application Server platform. It is a browser-based system and is designed to be platform independent and run on multiple workstation platforms.

The department will continue to roll out this system on an institution-by-institution basis, with completion scheduled for sometime in 2004. Full implementation and future expansion of this capability will be dependant on resolution of technical issues relating to obsolete networks and workstations within the institutions.

Development of the next phase of OIM has begun and will be implemented by the 2<sup>nd</sup> quarter of 2004. It consists of expansion of image collection capability to Probation and Parole field offices and the creation of online transactions to produce Absconder Face Sheets. Because P&P is fully automated, the department will not have to resolve technology related issue to implement this phase of the project.

### ***Salient Factor Analysis and Design***

The analysis and design of the Salient Factor system was completed at the very end of 2003. This system records offender criminal behavior results and using OPII data, will afford the department the ability to accurately determine salient factor scores, guideline dates and range determinations without manual calculation. Because of the requirement to run across department boundaries, this system will be implemented in both 'green screen' and browser-based versions. All data will reside in the central OPII data repository.

Construction is scheduled to be complete in the 2<sup>nd</sup> quarter of 2004, with training and implementation occurring in the 3<sup>rd</sup> quarter.

### ***Criminal Behavior Research Summary Analysis***

Analysis of the Criminal behavior research Summary project was completed in 2003. Design, construction and implementation will occur in 2004 with target completion of mid-year. This project is related to the Salient Factor system in that it is intended to record local, out of state and federal criminal behavior research information as it directly relates to the salient factor scoring process.

## ***MSP Rename***

Because of nearing completion of the new Jefferson City Correctional Center it became necessary to rename the older JCCC back to the Missouri State Penitentiary (MSP). This decision mandated extensive changes to a number of computer systems within the department. To accommodate the rename it was necessary to make changes to eight separate systems. The changes also involved modifications to 141 tables or files, and conversion of 8,750,000 records in our systems.

## ***Network Support***

A number of additional department locations were connected to the wide area network during 2003. New LANs, servers and workstations were installed or moved in support of all of these. A new institution, the Eastern Reception Diagnostic and Correctional Center, was opened at Bonne Terre at year-end 2002. In the early part of 2003 over 225 workstations (PCs and thin clients) were installed to support this facility. The cook/chill facility at ERDCC was added to the network and application servers supporting 3<sup>rd</sup> party software managing this function was installed and implemented. Eleven new Probation and Parole locations were created by splitting previous offices. These locations had to be added to the network, new servers and other equipment installed, and more than 150 workstations moved to support this change. Twelve Probation and Parole offices and two other department locations with approximately 300 workstations were also relocated during the year.

During this period more than 250 LAN-connected PCs were replaced or added to the network. In 2003 network staff also had to replace more than 120 terminals because of failures and installed another 150 thin clients as replacements or new devices.

In 2003 the department also retrofitted twenty-five kiosk workstations in sixteen institutions with new hardware and Windows XP software. These kiosks enable incarcerated offenders to directly access banking account balances, etc., from a location within the institution.

Demand on the department's help desk function, the Customer Support Center, remained high in 2003. There were 23,426 calls to the Support Center, which is a small increase over 2002. Work orders submitted to the Support Center also increased slightly to 12,585. Out of these work orders more than sixty-five percent required onsite support for resolution.

Other network support projects completed in 2003 include:

- ❑ Implementation of VPN capability for the DOC wide area network and installation of capability in twenty Probation and Parole locations that did not currently have network access
- ❑ Completed a pilot of Long Reach Ethernet (LRE) technology in institutions that have sub-standard data wiring
- ❑ Creation of plan for Windows 2003 server migration

- ❑ Replacement of fifty-eight network servers and upgrade to Windows Server 2003
- ❑ Upgrades of Router microcode (84 routers)
- ❑ Installed or replaced 120 LAN switches at 63 locations
- ❑ Updated automated software deployment process for department client-server applications
- ❑ Completion of multiple deployments of SAM II client software upgrades on over 400 workstations
- ❑ Upgrade of Office software version from 97 to 2000 for 95 SAM II users
- ❑ Installation of network equipment and workstations in the remaining housing units at ERDCC
- ❑ Implementation of extended firewall function
- ❑ Pilot implementation of Long Reach Ethernet capabilities
- ❑ Completion of second phase of the implementation of the Probation and Parole Minimum Supervision system by installing Internet connection capability on 115 workstations
- ❑ Completion of third phase of the implementation of the Probation and Parole Minimum supervision system by installing sound capability on 172 workstations
- ❑ Deployment of Outlook mail capability to an estimated 500 Probation and Parole staff and workstations

## **Planned Projects**

As in 2003 and previous years, in 2004 most of the department's Information Systems focus will be on the maintenance of the technical infrastructure and existing computer applications. Progress on the recommendations made in the 1999 Infrastructure Review and the 2000 DOC Architecture Review will be minimal until sufficient staff resources and funds become available in future years.

### ***Computer Applications***

Because of the lack of development staff, there are no formal plans to accelerate efforts to develop applications identified in the Information Strategy Plan. However, there are several critical business areas where the department requires some degree of technology support that will be implemented in 2004.

Additional application development projects that are planned for 2004 include:

- ❑ Probation and Parole Automated Case Management system
- ❑ MARS enhancements, including development of standard diagnostic and treatment codes

- ❑ Fleet management report development
- ❑ Implementation of automated interfaces to the new vendor-provided Electronic Monitoring Program (EMP) system
- ❑ Enhance OPII conduct violation function with automated form completion capabilities
- ❑ Changes to the offender classification functions of OPII, driven by policy changes
- ❑ Implementation of a web-based version of the Victim Notification System (VINES)
- ❑ Enhance Visitation Management with additional edits, including searches to determine if a visitor is using a different name but similar license, Social Security or other identification numbers to visit offenders across different institutions
- ❑ Implementation of new Common Code tables to facilitate migration from the J. D. Edwards proprietary CASE tool

### ***Population Management***

One of the greatest challenges facing the Department of Corrections is the management of the large offender population, especially given the limited resources assigned to the department. There are currently several initiatives underway relating to population management that will result in significant changes to department business processes. We are already seeing requirements for Information Systems and Technology support emerge from these initiatives and anticipate that there will be extensive opportunities to support these with changes to existing or implementation of new computer systems in 2004 and beyond.

Currently these department initiatives include Transition from Prison to Community, Information Quality, External Communications, Electronic Access to Information, Board Returns, and Inmate Canteen.

### ***Toxicology Lab System***

In 2003 we began the analysis of the need to interface the department's toxicology laboratory with other offender-related information. In early 2004 the analysis and design will be completed and implementation is planned for mid-year.

The laboratory has identified the need to expand access to drug and alcohol testing information and to incorporate results of such testing in the central offender data repository. This will also increase the ability to perform greater analysis and reporting activities. The project will result in automated interfaces between the central system (OPII) and the Toxicology Lab testing system located at the Cremer Therapeutic Community Center. It will also enable direct entry into OPII of test results conducted by Probation and Parole officers in the field.

### ***Justice Integration***

During 2004 we anticipate beginning construction of the automated interface between the department and the Criminal History repository located at the Highway Patrol. Federal funds are available for this effort and the analysis of the requirements have been completed.

Additionally, in 2003 the Justice Integration Task Force completed an analysis of the information sharing needs between the criminal justice agencies across the state. From the department's perspective the primary exchange points were the Highway Patrol (criminal history information) and the Courts. However, the analysis also pointed out the potential need for department data by other law enforcement agencies, including local sheriffs and police departments. We believe that if funding becomes available, implementation will begin on some of these exchange requirements during 2004.

### ***Data Warehouse***

In 2004 data warehouse efforts will focus on implementation of the concept for the Offender Management (OPII) system, with a focus on Central Office information needs, and for SAM II reporting. We also plan to continue the extension of access to this resource to more department customers.

### ***Image Processing***

The Offender Image Management system (OIM) will be expanded in 2004 to include Probation and Parole requirements. Included in this effort will be implementation of image collection capability at the field office location, retrieval of images via workstations and printing of the Absconder Information Sheet.

Although not yet firm for 2004 development efforts, the use of image is expected to expand to include such other components as scars/tattoos and violation and grievance documentation. If resource availability permits, we may begin work on incorporating images of these types into the appropriate applications during this period.

### ***Network support***

A number of activities relating to the data network have already been identified as 2004 projects. These include the following:

- ❑ Installation of 200 workstations, servers, printers and associated network equipment in the new Jefferson City Correctional Center
- ❑ ISA filtering and Websense upgrade and implementation
- ❑ Relocation of approximately ten to fifteen Probation and Parole offices and 200 to 300 workstations
- ❑ Deployment of Outlook mail and Internet capability to approximately 700 Probation and Parole staff and workstations

- ❑ Begin upgrades of obsolete P&P workstations and migration to Windows XP
- ❑ Begin upgrade of Data wiring in institutions
- ❑ Complete wireless LAN pilot project
- ❑ Implementation of the new Electronic Monitoring System by installing Internet connection capability on over 100 workstations
- ❑ Completion of third phase of the implementation of the Probation and Parole Minimum supervision system by installing sound capability on 172 workstations
- ❑ Development of a plan and implementation of software auditing capabilities on approximately 2,800 department network-connected workstations
- ❑ Development of a migration plan to Windows XP client

In addition to the projects above, we expect to spend considerable time defining a multi-year operational strategy relating to the replacement of obsolete workstation and network technology within the department. For four years the department has been unsuccessful in obtaining funding to upgrade its obsolete and high-risk data networks. Because of the state's financial position, the department has not submitted a request for FY05. Essential network equipment is very outdated and most is no longer capable of supporting current software and hardware technologies. Because it was not funded in a timely fashion, the manageable migration to replacement technologies that was recommended in the 1999 Infrastructure Review is no longer possible. As the result we will be forced to accomplish this migration in a much shorter timeframe and at much higher costs and risks. The operational strategy that will be developed will focus on minimizing these costs and associated risks, while accomplishing the task in a much shorter period of time.

## **Accumulated Demand**

Significant backlogs of accumulated demand exist in several functional areas within the Information Systems area.

### ***Applications Development***

In applications development there are 439 enhancements pending for the Offender Management system (OPII) alone. These enhancements represent requests that have been approved and prioritized. Because of focus on high priority projects during 2003, most new requests were placed in a 'holding file' for consideration at some later date. These are not included in this number. At current staffing levels and assuming that no additional work materializes, these approved OPII requests represent three or more years of backlogged work.

In addition to the OPII backlog, there remain significant changes pending for the Offender Medical system. Because of the magnitude of these proposed changes and the limited staff available to support the medical system, these requests will require at least two years to complete.



During 2003 the department began a major effort to look at and change business processes to deal with population growth and offender success. Out of this effort a number of major projects have been initiated that will most likely impact the demand for applications and technology support in the near future. These projects include Transition from Prison to Community, Information Quality, External Communications, Electronic Access to Information, Board Returns, and Inmate Canteen. A number of other initiatives have been identified and will be initiated over time. All of these will have a major requirement for Information Systems and Information Technology resources.

Aside from the above, there remain forty-one business systems identified in the department's Information Strategy Plan. All of these represent potential candidates for new computer applications. Assuming that staff shortages are not alleviated, we anticipate little progress in the development of new computer applications to support these business areas.

### ***Network Support***

For 2003 there was a monthly average of 354 backlogged service requests that required onsite support. The current backlog represents eight months of work. This number represents an increase of more than 59% over the previous year. Given the current staffing levels it is likely that this backlog will continue to grow. Additionally, the demand for installation and support of networked PCs has been artificially constrained due to the severe limitations of the data networks within institutions. If the department manages to begin to upgrade these networks a significant growth in PC workstations and related support requirements would naturally follow.

Other factors impacting the network support workload include the increasing need for support of obsolete technology. Currently over eighty percent of the workstations connected to the department's network are three or more years old. The accepted life cycle for these device types is three years. During 2004 this percent of obsolescence will grow. Unless funding for replacement technology is received, the support required by these devices due to age and failure rate will increase significantly.

Another major factor that impacts the workload in this area is the replacement of obsolete terminal devices. Computer vendors no longer manufacture the terminal devices traditionally used by the department. As replacement devices are required, these are now being acquired from the used market. There are currently more than 3,600 terminal devices installed on our network. We anticipate that the failure rate of these will continue to rise and the replacement workload will grow accordingly. This problem will remain with the department until funding is received that supports the implementation of newer network technology and the replacement of these old terminal devices.

### ***User Training***

Because of increased involvement by Trainers in the application development process, including training on and support of new systems, less of their time is available for other user training. Some progress was made in addressing the department's application

training requirements during 2003, but there remains a significant backlog in training of users on department computer applications. The offender management system has a four-year backlog for staff training. Approximately 85% of the 11,000 system users of OPII have not received required refresher training. Other new applications will impact the training requirement. We estimate that there exists another 8,000 staff with a lower priority training needs. We cannot estimate a realistic timeframe for these users and assume training will occur over the next three to five year period. None of these estimates include additional training requirements that will come up as the result of staff turnover and implementation of changed and new applications.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Missouri Department of Corrections</i>			
Street Address		City	Zip
<i>2729 Plaza Dr</i>		<i>Jefferson City, MO</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL	
<i>573-526-6502</i>	<i>573-751-4099</i>	<i>www.corrections.state.mo.us</i>	
Department Director			
<i>Gary B. Kempker</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>11,200</i>		<i>5,595,211 (entire state population)</i>	
Agency Mission (brief statement)			
<i>The DOC with victims, communities and state and local governments improves public safety through humane confinement and effective community intervention. Through our cooperative efforts to provide effective correctional services, we hold offenders accountable for their behavior and prepare them to be productive citizens.</i>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri Department of Corrections</i>		
Department CIO Name		
<i>David L. Schulte</i>		
Street Address	City	Zip
<i>2729 Plaza Dr.</i>	<i>Jefferson City, MO</i>	<i>65102</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-526-6452</i>	<i>573-522-2274</i>	<i>dschulte@mail.state.mo.us</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
N/A		
IT Division Name		Website URL
<i>Information Systems</i>		<i>N/A</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>41</i>	<i>13</i>	
Total \$\$ value of FY04 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY04 IT requests funded	
<i>\$ 6,885,628</i>	<i>\$ 5,879,722</i>	
Security Officer Name	Phone No.	E-mail
<i>N/A</i>		
Privacy Officer Name	Phone No.	E-mail
<i>N/A</i>		
ITAB Alternate Name	Phone No.	E-mail
<i>R.P.Campbell</i>	<i>573-526-6614</i>	<i>pcampbell@mail.doc.state.mo.us</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>N/A</i>		

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Corrections</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>N/A</i>
PC Servers	<i>Win2003</i>
Mid-range	<i>AS/400</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>WinNT</i>
Dumb terminal	<i>5250 and thin clients (networked workstations)</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP and SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>WAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Symantec Norton Antivirus and Antigen</i>
Desktop	<i>Symantec Norton Antivirus</i>
Internet	<i>Pix Firewall</i>
Help Desk Packages (Magic, GWI)	
<i>Track-it</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2/400</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Native RPG, Cool:Biz, Cool:Plex</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>MS Exchange and Outlook (on clients)</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>N/A</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>N/A</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1 and Frame Relay</i>
GIS (ArcView, MapInfo)
<i>N/A</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Economic Development

#### **Accomplishments**

##### ***Workforce Consolidation***

In February 2003 Governor Holden signed Executive Order 03-04 transferring the employment and training functions of Temporary Assistance for Needy Families (TANF) and Parents Fair Share (PFS), and continuing contractual arrangement to serve Food Stamp recipients in the Missouri Employment and Training Program (METP) to the Division of Workforce Development.

This consolidation effort resulted in the development and enhancement of several IT applications that serve that constituency and required extensive coordination with the Department of Social Services, Division of Family Services. The project required the installation of a variety of new hardware and software as well as interfaces to the DSS.

##### ***Great Hires – Missouri’s Workforce Resource***

The Department of Economic Development sponsors and maintains a Missouri Works! website that provides job services through alliances with agencies/organizations focused on improving quality of life for all Missourians. This site has been known as Missouri Works! or Works! since its inception several years ago. This web site is linked to from numerous other web sites and the Missouri Works! An initiative has been undertaken to rename this site to Great Hires.

Along with the new name the application is being reengineered to provide more complete services by providing a better job-matching component. This included major revisions to the job seeker and employer portions of the application.

##### ***Regional Web Site***

DED implemented a new, more personal and efficient model of serving DED customers. Through the redesigned department website and regional teams, the department will deliver this new method of outreach and service to all regions of the state by matching information and needs of geographic areas with DED services in ways to produce the

greatest economic benefit for the geographic region. The new web site features a consistent template for all divisions of the department as well as the regional team concept for delivering services.

### ***Customer Management System***

CMS is the application the DED uses to track its clients and the products that the department provides. These products are primarily financial products such as grants and tax credits. Several enhancements were implemented and a more comprehensive approach to administrative reporting was designed. Planned enhancements include automated interfaces with other state entities involved in the process.

### ***Network Upgrades***

DED migrated their wide area network links from a multi-hub configuration connected back to Jefferson City by T1s to home runs routed through a pair of frame relay clouds. This migration reduced our line charges by eliminating hops through multiple carriers and simplified bandwidth provisioning by removing the bottlenecks at the hubs.

### ***E-mail and Web Site Naming Standards***

DED completed the conversion of e-mail addresses and web site naming conventions to the new state standards. The new standards provide consistent naming standards across all of the state government thus enhancing the public's ability to access state resources.

### ***Automated News Feeds***

DED completed the process of electronically providing department news releases to the State of Missouri home page. Previously the news releases were automatically presented to the DED home page but not to the state home page. This process includes posting the news releases to both sites and provides the public with the most current DED news.

### ***Server Consolidation***

MIS went through the process of reviewing the department's server infrastructure used throughout the department. This review resulted in the consolidation of several servers and a more manageable server environment.

### ***Disaster Recovery Application***

MIS quickly reacted to a request by the department to develop an application that tracked applicants and gathered initial information about the businesses and families that sustained damage from the tornadoes that occurred last May. The DRA (Disaster Recovery Application) assisted DED staff by allowing them to gather and analyze data from their laptop computers at various disaster relief sites.



### ***Intranet Website***

The Missouri Division of Professional Registration has completed the implementation of an Intranet website. This website serves as a central repository for vital internal information. The site has also gathered various forms and resources into a single location for both onsite and offsite staff. As a result of the successful implementation of this Intranet site, staff time spent on locating and using resources has been dramatically reduced as well as the time spent by Human Resources on disseminating new information. The site also serves as a gateway to the internal electronic timekeeping system.

### ***Electronic Timekeeping System***

The Missouri Division of Professional Registration has successfully implemented an electronic timekeeping system. This system is web based and is hosted via the new Intranet site. With the use of this system, paper timesheets and leave slips have been completely eliminated. The system also allows for cost accounting for investigative work for the boards. Timesheet preparation and processing time have been reduced by 50% with the use of this system.

### ***Department of Economic Development Leave Share Online Auction***

The Department of Economic Development Leave Share annual auction was hosted online for the first time using services and web applications provided by the Missouri Division of Professional Registration. By moving this annual auction for the Leave Share group from a paper-based, manual system to an automated, web enabled online auction approximately 160 hours of staff time were saved.

### ***Optical Imaging System***

The optical imaging system for the Division of Professional Registration has been successfully expanded to include workflow processing for the boards. As a result, some boards have implemented process changes that have reduced the time it takes to handle new applications and complaints. The optical imaging system is being used to store 2,750,000 images to-date. As a benefit, many of the boards have been able to reduce their onsite and offsite paper storage needs.

### ***Award of Online Renewal Credit Card Processing Contract***

A contract has been awarded for the processing of online payments via credit cards for the online renewal project. The related request for bids and contract was written to cover all the boards and professions.

### ***Automated Board Agendas***

The Missouri Division of Professional Registration has expanded the system used to produce board agendas and related documents in digital format instead of on paper. This allows the boards to fully archive in searchable formats their board meetings. The agendas are capable of being produced via the optical imaging system as well as from other sources. This allows the boards to produce a single compact disc for each board member instead of an immense paper agenda.

Most boards are realizing a cost savings of 25 - 67% with the automated agendas in comparison to producing paper-based agendas. This has also allowed the board to retain previous agendas as well as search much larger volumes of information when attempting to make decisions on board related issues.

### ***Information Sharing With Other Departments***

Due to the passing of House Bill 600 and other information sharing efforts, the Missouri Division of Professional Registration has developed and implemented information sharing with multiple other departments within the State of Missouri. Information is currently being shared routinely with four other departments as well as multiple divisions within those departments. This information sharing work specifically identifies the needs of these other departments and gives them only the information they require as opposed to just raw data on professionals. Processes are in place to share this information on regularly scheduled intervals.

### ***Electronic Filing and Information System (EFIS)***

EFIS is an integrated electronic work management system that includes document management, automated workflow, electronic filing, centralized data repository, full text search capabilities and is operated through the PSC Internet site.

Ongoing improvements to EFIS through business process management and application refinement has allowed the Public Service Commission (PSC) to continue to deliver improved, easy to access information as well as providing a business portal that benefits Missouri residents, regulated utilities, stakeholders, the Commission and its staff.

### ***Help Desk***

Help Desk services have been expanded to better serve those using EFIS and the PSC Internet site. Access has been provided via email, pager and a toll-free telephone number posted on the PSC Internet site. The Help Desk services are available Monday through Friday, 8:00a.m. - 5:00p.m.

### ***Broadcast Hearings via the Internet***

PSC hearings are broadcasted live from the hearing room in Jefferson City to the public through the PSC Internet site. Through this convenient access, Missouri residents and other stakeholders save time and money in travel expenses. Archives of these broadcasts are available upon request.

### ***Time and Leave System***

The PSC Time and Leave system is a web-enabled application used to track leave events, to interface with SAM II HR and is used to track data that is used to calculate assessment of regulated utilities. Since the implementation of this system, many benefits and efficiencies have been realized:

- ❑ Efficiencies in time spent matching, processing, and tracking leave requests, requests to work additional hours, and timesheets. On an annual basis under the manual time reporting system, approximately 4300 paper leave requests and 2620 paper timesheets were processed.
- ❑ Efficiencies in time management and approval processes.
- ❑ An annual savings in salary dollars to be at least \$32,387 (source: PSC Human Resources Department).
- ❑ Reduction of Paper and physical storage.
- ❑ Reduction in errors.
- ❑ Improved reporting.

### ***Mainframe Systems Data Conversion***

Since Visual Age was being removed from the State Data Center Cost Allocation Plan and with the implementation of the Electronic Filing and Information System, the PSC migrated the data previously stored on the State Data Center mainframe to server-based platforms hosted by the PSC.

## **Planned Projects**

### ***Enhancements to Customer Management System (CMS)***

The department's numerous customer contacts and the services and products provided to them are tracked in the CMS system. The first portion of the system to be implemented was the financial products, such as tax credits and grants. Additional features will be identified and implemented to provide more complete tracking information to the various DED business units.

### ***Department Intranet***

The Department is reviewing the format and content of our intranet and we intend to enhance the site to provide more appropriate content to department employees. The project will include an analysis of the department's needs and requirements as well as a review of the infrastructure components that will be required.

### ***Web Reporting Tools and Application Development Methodology***

MIS is planning on reviewing and evaluating web reporting tools and application development methodologies. These projects are intended to make the division more responsive to requests from the business entities within the state, both public and private.

### ***On-Line Renewals***

The current process for renewing licenses with the Division of Professional Registration is labor intensive and slow. Renewal forms are sent to licensed professionals through the postal service. Once received, the licensed professional completes the form and returns it to the Division of Professional Registration where the form is reviewed, the information is entered into the licensing system and a license is issued. This system will allow licensed professionals to renew their licenses via the Internet eliminating a number of steps from the process and reducing cycle time.

Based on preliminary information it is estimated that 98,088 licensed professionals would use the online renewals with an estimated state savings of \$98,088 and customer savings of \$980,880.

The contract for online payment processing has been awarded. The next phase is to bring the pilot boards up for testing.

### ***Disaster Preparedness Database and Website***

This project is a joint effort between the Missouri Division of Professional Registration and the Missouri Department of Health. The purpose of this project is to track and report demographic and specialty related information for professionals in the State of Missouri for possible use in the event of disaster. Since the Division is the licensing authority for professionals in Missouri, the additional information will be used to augment the current licensing system. Once the data is accumulated, the information will be available via a website that will allow for specific reporting and ad hoc searching for professionals with specific demographic or specialty criteria.

The primary users of the system will be both public and private organizations or groups that are attempting to do disaster planning or who are attempting to respond to an existing disaster with specific information on available resources such as professionals.

### ***PSC Integration Project***

The Integration Project team is charged with integrating processes used to help set rates, determine costs incurred by utility companies, and track/generate PSC staff testimony. This new “integrated” system will link the data modeling functions of Exhibit Manipulation System, Rate Design, and Billing Determinant activities as well as provide PSC staff queuing to help prepare for testimony presented in cases brought to the Commission. Having a centralized data repository and the integration of these processes and systems, the PSC will be more efficient therefore accomplishing the goal of reducing costs of doing business with the PSC.

The PSC has a working prototype and is currently in the joint application development stage.

## **Accumulated Demand**

### ***Internet Enablement of New and Existing Business Processes***

As more and more of the Missouri Division of Professional Registration's business is moved to the Internet, such as online renewals and disaster preparedness, there continues to be an increase in the demand for additional business processes to be migrated to the Internet as well. Examples of these additional business processes include new applications, compliant filing, and continuing education tracking. The focus of this migration is to improve service and reduce process time to professionals as well as to any groups involved with them.

There are additional demands from the boards at the Division to be able to improve their internal business processes technology such as the Internet and other web services. The demand for this type of work is expected to continue beyond the existing project list.

### ***Further Use of Technology To Offset Shrinking Budgets***

Extensive demand is expected from the boards for the further use of technology in order to offset shrinking budgets. In the past this demand had lead to the implementation automated agendas, Intranet website, and the optical imaging system. There are currently requests for these types of projects that cannot be fulfilled at this time due the staffing levels as well as other project priorities. These projects can be accomplished once an existing staff vacancy can be filled and the online renewal project is in production.

### ***Additional Information Sharing Requests***

With the completion of the Disaster Preparedness project (see Planned Projects section), demand for information sharing is expected to increase dramatically. State and local governments as well as the Federal government are expected to increase their requests for this type of information. Considerable effort is expected in order to meet those demands.

### ***Current Backlog for IT Projects***

PSC currently has 20 official change orders and IT development projects creating a latency of approximately one year based on current staffing and resources.

<b>General Department Profile (2003)</b>		
Department Name		
<i>Economic Development</i>		
Street Address	City	Zip
<i>301 West High</i>	<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL
<i>573-751-4962</i>	<i>573-751-7258</i>	<a href="http://www.ded.state.mo.us">www.ded.state.mo.us</a>
Department Director		
<i>Joseph Driskill</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>1619</i>	<i>Universal (International Marketing, Missouri Works!)</i>	
Agency Mission (brief statement)		
<p>We will achieve our vision by stimulating and supporting economic security, opportunity, growth and a high quality of life in Missouri communities.</p>		

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Economic Development</i>		
Department CIO Name		
<i>Bob Meinhardt</i>		
Street Address	City	Zip
<i>421 East Dunklin</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-5466</i>	<i>573-751-1217</i>	<i>bob.meinhardt@ded.mo.gov</i>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
IT Division Name		Website URL
<i>Management Information Systems</i>		<i>ded.mo.gov</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>41</i>	<i>13</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
Security Officer Name	Phone No.	E-mail
<i>BJ Atchison</i>	<i>573-751-0435</i>	<i>Bj.Atchison@ded.mo.gov</i>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	E-mail
<i>Cathy Reinkemeyer</i>	<i>573 751-4312</i>	<i>cathy.reinkemeyer@ded.mo.gov</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Jayne Wack</i>	<i>573-751-5461</i>	<i>Jayne.wack@ded.mo.gov</i>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Economic Development</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Windows2000,NT, Linux, FreeBSD, OpenBSD</i>
Mid-range	<i>AIX</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 95, 98, NT, 2000, XP, Linux, MAC</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Dialup</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET, Socket</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Router based access list, IPFW, IDS, PPTP, IPSEC, SSH</i>
Desktop	<i>Norton</i>
Internet	<i>Same as "Network"</i>
Help Desk Packages (Magic, GWI)	
<i>Magic Helpdesk</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle, MySQL, Microsoft SQL server, Sybase</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, SAS, Visual Age, Vision Builder, CICS, PL/SQL, VB, Perl</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange, SendMail</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL, SSM, PPTP, IPSEC</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	



<i>CVS</i>
Telecommunications (T1, Frame Relay, etc.)
<i>DS3, T1, Frame Relay, MAN</i>
GIS (ArcView, MapInfo)
<i>ArcView</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Dept. of Elementary and Secondary Education

#### ***Overview***

The Department of Elementary and Secondary Education (DESE) continued the development effort that will allow the department to interact with public school districts through worldwide web applications. DESE looks to provide data marts for these systems over the next few years in order to make it easier for reporting. We also continue to upgrade our technical infrastructure in order to provide the best service to our users.

#### ***Accomplishments***

##### ***Teacher Certification***

The Teacher Certification (now Educator Certification) system was transitioned from a mainframe to a client/server environment during the 2003 calendar year. This system allows the Educator Certification area to record information concerning educators and substitute educators, including their areas of study, areas of certification, etc. In addition, several professional conduct features have been added such as automatic checking for revocations of certificates in other states and a more firm connection between the substitute certificate system and the main certification system.

##### ***Core Data Collection – FTP Upload & Enhancements***

The main portion of the Core Data Collection system was completed in calendar year 2002. A project to allow school districts to upload, via a File Transfer Protocol (FTP) process, several of their data files was completed in FY2003. The FTP uploads have allowed districts with large volumes of data to avoid significant time in data entry by allowing them to download information from their local systems and upload the data directly to DESE.

In addition to the FTP upload process implementation; there have been changes to several web pages within the Core Data Collection system. Some of these changes have been made in support of the technology upgrade while others have been due to changes within Federal regulations, particularly “No Child Left Behind”.

### ***Vocational and Adult Education Salary Reimbursement***

In an effort to make the distribution of monies in the Vocational and Adult Education State Salary Reimbursement more equitable, the calculation for reimbursement has changed. For Area Vocational Tech Schools the reimbursement will be based on enrollment. For Comprehensive schools the time devoted will be the base for the reimbursement. Both are dependent on *approved* courses and certified FTE. In the past some of these criteria had to be determined manually. This project further automates the process so as to free time from the program areas to be used to help and advise the schools rather than determine payment amounts.

### ***Performance Based Data Management Initiative***

This is a pilot program with the federal Department of Education. The goal of the program is to standardize the collection of data, by the federal government, from all participating entities. A set of data collections has been identified by DOE and distributed to the entities. The pilot timeframe is from November 15, 2003 through December 15, 2003.

### ***School Foods Direct Certification***

This system provides participating school districts with information on students who are:

- ❑ participating in the Direct Certification program. The computer application was rewritten.
- ❑ from the DESE mainframe to a web-based application. Testing is currently underway and,
- ❑ the new web application is slated to be used for the next cycle in June 2004.

### ***MAP Demographic Data Update***

This project allowed school districts to correct errors made in coding of student information sheets when preparing for the Missouri Assessment Program (MAP) testing last school year. The information corrected dealt with certain student demographic data related to No Child Left Behind.

### ***Federal Title I LEA Plan***

The No Child Left Behind Act of 2001 states that a school district may receive Title I funds only if the district has a state-approved Local Education Agency (LEA) plan. This web-based application allows the school districts to comply with that requirement.

### ***Schoolwide Commitment Form***

As part of the Title I funds program, a school district is required to apply in order to go through the process to become a Schoolwide. Based on this commitment, schools must develop a plan as to how Title I instruction will be delivered throughout the entire building. This web-based application allows the school districts to indicate their commitment to participate in the process to become a Schoolwide Title I program rather than completing the form on paper

### ***Nonpublic Enrollment***

Implementation of this previously paper-based process as a web-based data collection tool will result in a savings of time of ½ of an FTE. This time will be redirected in answering questions from school districts. The first year of implementation did not realize any savings as mailings and training sessions introducing the new system were held. The system will allow non-public schools participating in various programs in the state to report the enrollment of their students in programs at public districts.

### ***Datamarts***

Work continues for providing reporting databases to the various business areas. New datamarts completed this year include Teacher Certification, Perkins Accountability, and School Foods. Modifications or enhancements were made to other datamarts including Early Childhood Special Education, Census Of Technology, and the Missouri Assessment Program (MAP).

### ***Mainframe Hardware Transition***

Earlier in the year DESE transitioned the mainframe hardware from an IBM S/390 to an IBM X232. This transition reduces maintenance costs and the X232 can be utilized as a web server once all business applications are transitioned from the mainframe environment.

### ***Servers upgraded to Windows 2003 Platform***

The server infrastructure has been upgraded to the latest version of the Windows Server and other key infrastructure software has also been upgraded to the latest version such as Exchange 2003. This upgrade improves the functionality and usability of the current infrastructure.

## **Planned Projects**

### ***State Special Education Payment***

Due to changes in the way data used in this payment is collected, the process of making this payment has become very manual intensive for both the business and information technology sections, requiring up to 50-75% of up to 5 people's time for 2 weeks out of each month. A method of making this payment more automated and less complex has been analyzed and is the highest priority, after current projects, on the list of projects for Information Technology. This will reduce the manual effort and will free up resources for more productive activities.

### ***Core Data Collection –Reports, Edits***

The main portion of the Core Data Collection system was completed in calendar year 2002. This project will enhance the current web pages to allow for online reports, and online edits of the data. Online edits will be performed on each screen at SAVE and SUBMIT time to help eliminate errors in data. Reports will be made available online for the convenience and use of the school districts.

### ***Core Data Collection – Copy Process***

The Core Data Collection gathers data from the school districts that are core to many department processes. In the current environment these data are gathered via the web but must be dispersed also to the mainframe environment to support those existing systems and to a datamart used for ad hoc queries. Currently, data must be copied en masse as it is difficult to determine exact changes. This project will enhance the efforts to copy these data from one environment to another as well as enable the department to have a “work” area and an “approved” area where the data will reside. The districts will then be able to make any necessary changes in the work area while the approved area will be used as the source of data for payments and official reports. In addition, this project will allow for a more immediate population of the datamart that currently can be refreshed only weekly due to data volume.

### ***Appropriate Certification Report System***

This project will make available, via the web, reports that were previously printed and mailed to school districts. One of these reports is the Not Appropriately Certificated Report. It indicates to the districts those educators who are not appropriately certificated to teach the courses they are teaching within a school year so that the district can remedy the situation. This report is produced for use by the school districts and DESE staff only. The report distributed to the district, contains only that districts information. The other reports are statewide indicating the number and percentage of educators who are appropriately certificated as well as the number and percentage of errors within the system and those educators not appropriately certificated.

### ***Vocational and Adult Education Contracted Services Payment***

In an effort to streamline processes, the Contracted Services payment in the Vocational and Adult Education division is being re-engineered. Previously, the system was paper based with forms passing between the eligible school districts and DESE personnel a minimum of four (4) times. The new payment will be based upon data collected from the school districts via a web page and the calculation performed based on a percentage rate established by the Assistant Commissioner.

### ***MAP Reports on the Web***

Existing MAP reports sent to school district on CD will be moved to a web-based environment. This will reduce mailing costs and will give the districts the ability to look at data from any computer attached to the Internet instead of loading software on individual machines. Future plans are to add analytical functionality and ad-hoc capabilities.

### ***Medicaid Reimbursement for State Schools for the Handicapped***

Due to HIPAA requirements, Medicaid claims must be submitted in a more secure manner. DESE personnel will be developing a system to take Medicaid information and convert it into the proper format to transmit into the Medicaid system. Outsourcing this work would cost the agency roughly \$60,000 per year. There will be a significant saving by developing the system in house.

## **Accumulated Demand**

There are currently 15 New Development requests and 20 Product Enhancement requests on the Project Request List for DESE. Of these requests, 9 New Development and 7 Product Enhancements are currently underway. In addition, the upgrade to the infrastructure will result in a projected additional 12 projects completed in the next fiscal year. It is anticipated that it will take an additional 3-5 years to complete the infrastructure upgrade and transition to new technology required for that upgrade.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Department of Elementary and Secondary Education</i>			
Street Address		City	Zip
<i>205 Jefferson St.</i>		<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL	
<i>573-751-4212</i>	<i>573-751-8613</i>	<i>http://www.dese.mo.gov</i>	
Department Director			
<i>D. Kent King - Commissioner</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>2500</i>		<i>Approx. 75% of the citizens of Missouri. We directly serve the 524 public school districts in the state.</i>	
Agency Mission (brief statement)			
<i>The Department of Elementary and Secondary Education is a team of dedicated individuals working for the continuous improvement of education and services for all citizens. We believe that we can make a positive difference in the quality of life for all Missourians by providing exceptional service to students, educators, schools and citizens.</i>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Department of Elementary and Secondary Education</i>		
Department CIO Name		
<i>Paul G. Wright</i>		
Street Address	City	Zip
<i>205 Jefferson St.</i>	<i>Jefferson City</i>	<i>65102</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-526-7363</i>	<i>573-526-4125</i>	<i>Paul.wright@dese.mo.gov</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>MoVAP Committee Chair, MOTECH Committee Chair, Performance Management Committee Chair, Jefferson City Information Technology Coalition (JCITC)</i>		
IT Division Name		Website URL
<i>Information Technology</i>		<i>www.dese.mo.gov/divadm/infotech</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>22 (DESE Central Office)</i>	<i>27 (Vocational Rehabilitation Office-JC)</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>0 (No requests made.)</i>	<i>0</i>	
Security Officer Name	Phone No.	E-mail
<i>Steve White</i>	<i>573-751-9821</i>	<i>steve.white@dese.mo.gov</i>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	E-mail
<i>Diana James</i>	<i>573-751-4478</i>	<i>diana.james@dese.mo.gov</i>
SDC Steering Committee Rep Name	Phone No.	E-mail



<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Elementary and Secondary Education</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>IBM X232 running VSE 2.7</i>
PC Servers	<i>Windows 2003</i>
Mid-range	<i>UNIX (AIX)</i>
Networked	<i>Windows 2003</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows XP, Windows 2000</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>ATM</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Norton Anti-virus, Cisco IDS</i>
Desktop	
Internet	<i>Norton Anti-virus, Cisco PIX, Cisco IDS</i>
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle 8.1.7</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Maintenance Only: COBOL, CICS, CSP, Advantage:Gen</i>	
<i>New Development: .NET</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange 2003</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	

Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>Source Integrity (MKS)</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1 and Frame Relay</i>
GIS (ArcView, MapInfo)
<i>ArcView</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Health and Senior Services

#### **Accomplishments**

##### ***Emergency Response***

Much of the information technology effort this year in the Department of Health and Senior Services (DHSS) was directed at technology that would enable DHSS to analyze and respond rapidly and effectively to health emergencies. Following are the projects DHSS has initiated or completed to enable it to respond better to a state emergency.

DHSS enhanced the capabilities of the Missouri Health Strategic Architectures and Information Cooperative (MOHSAIC) disease surveillance system to include:

- ❑ DHSS standardized networks and workstation configurations between Senior Services and Health that allows the employees to collaborate in a more efficient manner.
- ❑ DHSS started the development of the Automated Security Access Processing Application (ASAP). The software application will provide an automated web page for our clients to obtain access to the systems within DHSS. The automatic routing of the approval process and the drop down menus will provide a more effective and efficient method of gaining access to DHSS systems.
- ❑ DHSS expanded a web-enabled inventory management system to track the Strategic National Stockpile of pharmaceutical inventory. This system was implemented in February to track every dose of smallpox vaccine as it moved to the site where it was administered.
- ❑ DHSS implemented a central repository for smallpox vaccinations. The system includes the ability to report and track adverse reactions to the vaccine. The system was used in early 2003 when the state began offering the vaccine to healthcare first responders. The system can be used for all citizens vaccinated for smallpox.

- ❑ DHSS is in the process of implementing an Emergency Notification System that will enable DHSS to automatically call health care providers during a health emergency. The system will contain home telephone numbers, cell phone numbers, and pager numbers of private and public health care providers across the state. The system will be able to notify all providers in the state or selected groups by specialties or location. The system will automatically redial numbers until it gets a response from at least one of the provider's numbers. This system supplements DHSS e-mail and broadcast fax notification capabilities that were implemented three years ago. DHSS received CDC's final approved National directory structure for the ENS system 11/03. DHSS will interface the ENS system to the public health directory and develop scenarios for activation. Routine testing of this system will be developed to ensure proper function. DHSS' broadcast fax was expanded this year to allow it to be used by emergency programs of other state departments, such as the Alert Missouri program.
- ❑ The Disaster Situation Room (DSR) has implemented a web-based system to track hospital capacity and does track closest available hospital beds. URL for this system is <http://www.emsystem.com>.
- ❑ DHSS developed an interface that will accept hospital laboratory data and analyze it for trends that could indicate a disease outbreak or bioterrorism attack. DHSS also contracted with a private company to go into hospitals and develop a system to extract the laboratory data from each hospital's client tracking system and to submit the data electronically to DHSS in a common format. DHSS began receiving data from the larger state hospitals in 2003 and will have integrated the data into the integrated surveillance system in early 2004.
- ❑ DHSS has improved and web-enabled our active syndromic surveillance system, Bioterrorism Surveillance Sentinal. The Missouri hospitals are reporting the number of patients admitted with seven complaints—gastrointestinal illness, hemorrhagic disease, respiratory illness, neurological illness, rash illness, fever illness of unknown origin and chemical exposure with sudden onset. Hospitals will be able to enter the data real time. The data was previously manually tabulated by the hospitals on a daily basis and the information was called or faxed to the local public or district health agency three times per week to be entered into the previous version. The data are entered into a state database to determine if there has been an increase in admissions beyond the expected level for one of the syndromes. Testing was completed in December 2003 and implementation is scheduled for early January 2004.
- ❑ DHSS has established the infrastructure to begin receiving hospital emergency room chief complaint data electronically and promulgated an administrative rule with the required formats. DHSS will begin piloting with selected hospitals in early 2004 and additional hospitals will added over the next several years. The data will be automatically analyzed for trends and patterns and appropriate notifications sent based upon the results. This system enhances the manual active syndromic surveillance system by automating the collection and analysis of data. It reduces the impact on hospitals that currently manually tabulate the syndromic data.

- ❑ In order to better respond to a terrorist attack or other health emergency, DHSS continues to provide a 24X7 response team. As part of the team, DHSS continues to provide a skilled information technologist on duty at all times to assist with technology issues that might arise.
- ❑ DHSS has increased the security and availability of its network and data by purchasing and implementing additional firewalls, implementing anti-virus software on all DHSS desktops, virus scanning software for all email systems, including Internet email, implement anti-spam email filters, implement departmental Internet DMZ and migrate all DHSS Internet servers, implement Windows SUS server for Windows desktop security updates and patches, upgrading the uninterruptible power supply for the DHSS data center implementing hot backups, developing and testing virtual private network configurations. DHSS has purchased and implemented power generators for the DHSS data center and the Disaster Situation Room in the 912 Wildwood building. DHSS contracted with a private company to do network vulnerability tests biannually to determine the security issues in the department's network and has implemented an internal intrusion detection system.
- ❑ DHSS established a Department Situation Room that continues to serve a single point of coordination for all DHSS activities related to an emergency. The room is equipped with computers and satellite communication devices.
- ❑ DHSS expanded and enhanced their video conferencing capabilities to add sites and improve performance. Among other uses, video conferencing is used to train local public health agencies in terrorism response.
- ❑ DHSS continued its efforts to consolidate WAN data circuits to remote facilities, creating cost savings, DHSS replaced the network core router to provide data compression for additional capacity and data encryption for additional security, DHSS purchased replacements for all remote routers to provide data compression and encryption. DHSS implemented Mobile Command Center vehicle with satellite data communication equipment packages to respond to an emergency event. Upgrades were accomplished to core network equipment to all Senior Services regional offices. DHSS performed several major office consolidations and relocations.
- ❑ DHSS' conversion for the entire department to single email system (900 Senior Services users) is on-schedule and expected to be completed April 2004. Converted entire department to single NOS. Upgraded all Senior Services network servers and implemented network folder, backup/recovery and Remote Access services to 900 Senior Services users, established public health directory structure to fulfill CDC bioterrorism grant need, trained and install an automated provisioning system for network resource allocation.
- ❑ DHSS has implement a departmental imaging system, upgraded and consolidated main data servers to provide increased capacity and dramatic reduction in

maintenance costs. It also implemented additional SAN storage to reduce maintenance costs, increase performance and to reduce downtime.

- ❑ DHSS enhanced the web-based Organ Donor system to provide better analysis reporting for both DHSS and Organ Procurement Organizations (OPO) and has begun reporting to OPOs using GIS technology. DHSS automated data retrieval from DORA study conducted by one of the Organ Procurement Organizations has shown that lives have been saved and the quality of life has improved for additional recipients where the system assisted the family of a deceased person in making the decision to donate organs and tissues.

### ***MOHSAIC***

During 2003, the Department continued its progress on developing and implementing a statewide, integrated public health system, the Missouri Strategic Architectures and Information Cooperative (MOHSAIC). MOHSAIC is recognized as the nation's most fully integrated public health system and has been written up in a national public health journal and a chapter of a new health informatics textbook is used to describe DHSS' experience in developing and implementing MOHSAIC. Major MOHSAIC accomplishments this year include:

- ❑ The Health Management application enhanced the immunization registry to better report children eligible for Vaccines for Children and new vaccines.
- ❑ The Surveillance application was enhanced to cover bioterrorism response capabilities.
- ❑ An electronic interface with a major provider-billing clearinghouse was enhanced to enable DHSS to obtain more complete and timely immunization data.
- ❑ DHSS has developed a web-based Child Lead Level Program that is expected to be implemented in early 2004 after all quality assurance requirements are satisfied.
- ❑ DHSS once again secured minimal federal funding to continue development of a Traumatic Brain Injury (TBI) program as part of Missouri's E-Government initiative.
- ❑ DHSS expanded the Family Care Safety Register (FCSR) to include criminal information on sexual offenders as mandated in 2003 legislation.
- ❑ DHSS completed significant work on a Show Me Healthy Women application that will better track women's health issues.

### ***WIC***

DHSS implements system to detect dual participation in WIC. USDA mandated monitoring of WIC participation for Missouri counties that border surrounding states. Data for clients in bordering counties is now exchanged with the states they border. The data is then compared in order to detect clients that may be participating in WIC in more

than one state at the same time. States participating in the exchange of data are Tennessee, Kansas, Iowa, Arkansas and Illinois.

DHSS enhanced the BMI system for Children so that it would automatically calculate a WIC Child's Body Mass Index (BMI). This is extremely critical to determining many of the nutritional risk factors. BMI for children previously had to be manually calculated by the WIC worker as the client's data was being entered into the system.

DHSS implemented system changes to support the new infant formula rebate contract. Infant formula rebate is the system by which the state WIC program is reimbursed by the company producing and distributing the formula. The reimbursement is a percentage of the cost for each can of specified formula redeemed through the WIC program. New formulas were added and the WIC food packaging system changed to comply with the new contract.

DHSS implemented a special system enhancement (Caregiver) to assist in identifying infants and children enrolled in the WIC program that could be overweight, or at risk of being overweight. This is a client-centered approach to nutrition education, and includes counseling targeted at mothers/primary caregivers who serve as "proxy clients" for the infants and children. Primary activities include assessing current counseling practices of WIC nutrition educators and providing them with new knowledge and skills based on the Tran Theoretical Stages of Change Model, adapted to overweight education for the WIC population. If the project is successful, the counseling provided to WIC participants will change statewide to allow WIC to be more effective in assisting participants and their caregivers to improve their health status.

DHSS implemented "Direct Entry" to minimize the need for paper forms during WIC registration and certification; this enhancement has improved processing and provided a more pleasant experience for the client. This multi-phase project was started in 2002; Phase I was completed in September 2003; Phase II is scheduled for June 2004.

### ***Data Warehouse***

All data entered into MOHSAIC are moved to the department's data warehouse. DHSS develops subject-specific data marts to simplify the development of reports. A variety of tools are employed by users to develop reports from the data in the data warehouse, including SAS, MS Excel, MyEureka, Epi Info, and MS Access. WIC data was added to the data warehouse along with all new data captured in MOHSAIC.

### ***Document Imaging***

- ❑ DHSS implemented a pilot imaging project for Family Care Safety Register that has reduced the time spent handling the paperwork to support that process.
- ❑ DHSS analyzed processes for Nutrition Services for a possible future imaging project.

## ***Geographical Information Systems***

DHSS continued to find ways to integrate GIS technology into existing programs. GIS is now being utilized in many surveillance applications, such as Bioterrorism, Influenza, and West Nile. A GIS component has been developed for an environmental public health tracking grant. This component will assist in the monitoring of environmental health hazards.

The Missouri Emergency Response Geographic Information System (MERGIS) was developed by DHSS to aid and enhance emergency response through the use of GIS. The initial plans for this program included field teams of GIS professionals that respond on site during an event, and a web mapping application. The program now includes the following components:

- ❑ DSR/EOC support for Health Emergencies - A team of GIS professionals provides GIS support at the DSR, Mobile Command Center, or EOC during an emergency event.
- ❑ Local BT GIS program - This program was developed to provide GIS to health professionals at the local level. Users utilize GIS software and receive customized training to assist with local emergency planning and response. Currently nine local public health agencies are participating in this program.
- ❑ BT Surveillance - GIS component - A GIS component has been developed for the BT surveillance program. Data from the BT surveillance system is directly linked to GIS and viewed spatially.
- ❑ MERGISweb - Internet Mapping Service
- ❑ MERGISweb provides basic GIS tools to emergency response managers through a secure Internet website.

## ***Senior Services***

Senior services' staff in the county offices are being converted to a single e-mail system. This project will be completed by February 2004. Five Senior Services Offices will be converted from the Department of Social Services network to the Department of Health and Senior Services Network to provide a more direct service and a cost savings. Senior services' staff in the county offices were still using dumb terminals at the beginning of the year. All of the dumb terminals were replaced by PCs. Also, outdated wiring used by the senior services' network was upgraded.

- ❑ DHSS developed website for information showing Statement of Deficiencies for Long Term Care Facilities, citing the regulations.
- ❑ DHSS began a monthly dual-authorized spend-down vs. non-spend-down client report to help HCS determine the expense of the program, and its impact on the budget.



- ❑ DHSS implemented process revisions for data entry of the DA-355 form. This required a major overhaul to the Abuse, Neglect, and Exploitation report process; basically reassigning the responsibility of the investigation update and closure to the Field Staff vs. the Central Registry Unit. This enhancement, although requiring policy/procedure rewrite, greatly improved the accuracy and turnaround time for completing investigations and posting results to the database.
- ❑ DHSS revised several Senior Services systems, including, Long-Term Alternative Care Subsystem (LTACS) and Authorization/Payment System (DAAPS), due to federal mandates surrounding HIPAA to protect privacy of Individually Identifiable Health Information.
  - Phase I - Added the Confidentiality Statement to all reports that were generated through nightly batch processing and sent via e-mail to customers.
  - Phase II - Made changes to accommodate the national procedure code set; revised service units from 1 hour to 15-minute increments; changed unit rates; wrote several programs to modify database fields for all active clients in the system; worked with Verizon (the Missouri Medicaid Fiscal Agent) to test claims and Medicaid Eligibility file transfers; also removed dependency on the Division of Social Services for data entry of Social Services Block Grant (SSBG) invoices by writing a new online transaction that is now keyed within the LTACS Unit. (Implemented 10/1/03)
  - Phase III - Added a new authorized service, 'H2', CHORE. Prior to HIPAA, Homemaker Chore was a combined service. The new national code set required that the service be split into separate entities. This project required a rather significant database restructure. (Implemented 12/6/03)

DHSS applied changes to 80+ programs when e-mail was switched from Lotus Notes to GroupWise. Batch processing produces several daily/monthly/quarterly reports that are distributed via e-mail as opposed to hard copy. During this transition, many reports were upgraded or enhanced for content and aesthetics. Currently, the e-mail report distribution is being reprogrammed to use SAS SMTP Send in order to eliminate the cost for product software such as OFFICEPATH/RAPID and hardware dependency on the LMS switch.

DHSS developed an interface (currently in testing) for Long-Term Care (LTC) to use online transactions in the mainframe Central Registry for the Abused, Neglected, and Exploited Elderly (CRANE) system at the request of the Employee Disqualification List Unit. EDL has a need to track complaints in both LTC-Institutional which uses the Federal ACTS database, as well as in HCS, which uses the CRANE system.

DHSS started research, analysis, and facilitation of the Senior Services Technology Pilot project. The project challenges the division to rethink their paper/manual processes and current use of mainframe applications for a more automated and 'paperless' system. The pilot project incorporates the use of document templates, e-mail, and broadcast fax

features to distribute forms. It will also make use of laptops and cell phones to allow staff to become more mobile and provide a higher-level of client/customer satisfaction.

DHSS mainframe programming team has completed just over 100 support tasks or projects within this calendar year.

### ***Vital Records***

The Social Security Association contracted with DHSS to obtain verification of vital records data. DHSS developed and tested the data exchange and it was operational in 2003.

DHSS automated several of the manual processes for Vital Records staff; the refund process, online updating for all types of records, receiving death data from the State of Kansas and marriage data from some Recorders of Deeds.

DHSS is currently working on Interstate Exchange Agreement with the National Association for Public Health Statistics and Information Systems (NAPHSIS) states to exchange data electronically using CDC website instead of the current manual process of States sending paper copies of births and deaths of Missouri residence.

## **Planned Projects**

- ❑ DHSS will expand the data warehouse to include WIC client information to improve the department's capacity to measure performance measures and outcome goals.
- ❑ DHSS will implement the CDC Public Health Information Network Messaging System (PHIN-MS) for secure, standards-based data exchange with public health partners including; CDC, other Federal Agencies, other State Public Health Agencies, hospitals, and laboratories.
- ❑ Emergency response projects planned for 2004 enhancement of the Strategic National Stockpile inventory, enhancement of our syndromic surveillance system that would include electronically extracting the hospital data rather than manually reporting the data, implementation of a purchased Learning Management System to track professional emergency preparedness training, which will also be used to track training for other programs department-wide, implementation of the meta-directory.
- ❑ Enhancements for MOHSAIC for 2004 include enhancements to Child Lead Level Program and development of a Tuberculosis screening application, a traumatic brain injury application, a sexually transmitted disease application, a West Nile application, and a SARS application.
- ❑ DHSS will implement two document imaging projects in 2004. One is for Health Professional Incentive Program. For the other we will enhance the web site that lists

deficiencies found during nursing home inspections by addition of imaged responses from the nursing home to the deficiencies.

- ❑ DHSS is currently working on Interstate Exchange Agreement with the National Association for Public Health Statistics & Information Systems (NAPHSIS) states to exchange vital records data electronically using CDC website instead of the current manual process of States sending paper copies of births and deaths of Missouri residents.
- ❑ DHSS plans to expand the electronic billing provider interface to include notifiable disease reporting and notification.
- ❑ GIS planned projects include:
  - Implementing a secure Interactive Web Mapping Internet solution to enable Missouri's citizens to access approved DHSS health data and in secure situations the DHSS MERGIS application in other state agencies and first responder entities.
  - Implementing an ArcSDE solution to enhance spatial data storage and access for the user community.
  - Evaluating and possibly integrating newer MERGIS extensions.
- ❑ DHSS will populate public health directory and synchronize with ENS system and develop scenarios for ENS activation.
- ❑ DHSS will integrate all users to single email system and single NOS.
- ❑ DHSS will implement an automated network access form system and integrate in to the network provisioning system.
- ❑ DHSS will fully implement the VPN capabilities.
- ❑ DHSS will replace all remote routers.
- ❑ DHSS will replace all central site network communication equipment.
- ❑ DHSS will provide web-based network folder services.
- ❑
- ❑ DHSS will upgrade its Remote Access services.

## **Accumulated Demand**

The following projects have been requested but are not on the schedule because of a lack of resources or incomplete information:

- ❑ Additions of the following applications to MOHSAIC: environmental health programs, cancer control, and some health inspection programs.
- ❑ A web-enabled vital records system that would allow hospitals to enter new birth information and funeral home directors to enter death information over the Internet.
- ❑ Vital records and senior services databases will need to be converted from IDMS to either Oracle or DB2.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Department of Health and Senior Services</i>			
Street Address		City	Zip
<i>912 Wildwood</i>		<i>Jefferson City</i>	<i>65109</i>
Main Phone Number	Main Fax Number	Website URL	
<i>573-751-6001</i>	<i>573-751-6041</i>	<a href="http://www.dhss.mo.gov">www.dhss.mo.gov</a>	
Department Director			
<i>Richard C. Dunn, Director</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>2,200</i>		<i>5,000,000</i>	
Agency Mission (brief statement)			
<p><i>The Department of Health and Senior Services protects and promotes quality of life and health for all Missourians by developing and implementing programs and systems that provide information and education, effective regulation and oversight, quality services, and surveillance of diseases and conditions. We use strategic leadership and partnership, while promoting community participation in programs and systems, in order to accomplish outcomes and objectives.</i></p>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Department of Health and Senior Services</i>		
Department CIO Name		
<i>Scott Willett</i>		
Street Address	City	Zip
<i>920 Wildwood</i>	<i>Jefferson City</i>	<i>65109</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-6450</i>	<i>573-526-7645</i>	<a href="mailto:scott.willett@dhss.mo.gov">scott.willett@dhss.mo.gov</a>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
<i>National Association of Public Health Information Technology NAPHIT NASCIO Architecture Working Group</i>		
IT Division Name		Website URL
<i>Center for Health Information Management &amp; Evaluation</i>		<a href="http://www.dhss.mo.gov">www.dhss.mo.gov</a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>96</i>	<i>7</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$7,895,000 (Only Core Request)</i>	<i>\$7,895,000</i>	
Security Officer Name	Phone No.	E-mail
<i>Gail Morris</i>	<i>573-751-6450</i>	<a href="mailto:gail.morris@dhss.mo.gov">gail.morris@dhss.mo.gov</a>
Privacy Officer Name	Phone No.	E-mail
<i>Anne Reid</i>		<a href="mailto:Anne.Reid@dhss.mo.gov">Anne.Reid@dhss.mo.gov</a>
ITAB Alternate Name	Phone No.	E-mail
<i>Jim Branson</i>	<i>573-751-6450</i>	<a href="mailto:jim.branson@dhss.mo.gov">jim.branson@dhss.mo.gov</a>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Faye Zumwalt</i>	<i>573-751-6450</i>	<a href="mailto:faye.zumwalt@dhss.mo.gov">faye.zumwalt@dhss.mo.gov</a>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Health and Senior Services</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>0</i>
PC Servers	<i>73 Windows Servers, 43 Netware Servers</i>
Mid-range	<i>37 UNIX/RS/6000's</i>
Networked	<i>All</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>2000+, Windows XP, 2000, 98, 95</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, IPX, SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MoreNet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Mimesweeper, Mailsweeper, Norton Anti-virus</i>
Desktop	<i>Norton Anti-virus</i>
Internet	<i>IBM SecureWay firewall, Cisco PIX Firewall, Cisco VPN, Mailsweeper, Mimesweeper</i>
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle, MS Access</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, CICS, Delphi, .NET, Visual Basic</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Groupwise, NIMS, Lotus Notes (Will be converting Groupwise users to Lotus in 2003)</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	

Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>MKS Source Integrity Enterprise</i>
Telecommunications (T1, Frame Relay, etc.)
<i>Frame Relay, Point-to-Point, MAN, Wireless</i>
GIS (ArcView, MapInfo)
<i>Archview, ArchIMS, Network Analyse, Spatial Analyse, Sagent Geocoder, US Streetmap, ArchPAD, Trimble GPS, Teletype GIS, Archinfo</i>



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Higher Education

#### *Preface*

The Department of Higher Education handles most IT projects from its core operating budget, which includes state general revenue, federal funds, and funding resulting from the administration of the Federal Family Education Loan Program (FFELP).

The Department of Higher Education also coordinates the development of and recommends a consolidated budget request for the state's system of higher education. A multi-agency collaborative appropriation to the University of Missouri-based Missouri Research and Education Network (MOREnet) is included in this budget request. This appropriation partially funds operation of Missouri's state education network that serves higher education, K-12 schools, public libraries, and state government. Other IT projects supported within this budget include the MOBIUS Common Library Platform and the Missouri Learners' Network (MLN).

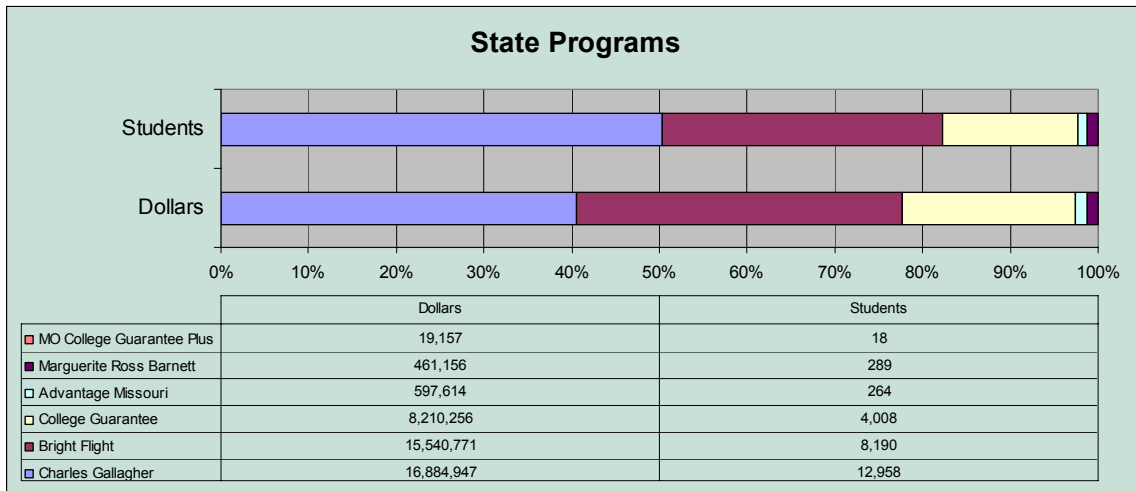
MOREnet is a nationally recognized leader in state networking and manages a state telecommunications Network Utility (intranet) consisting of a Network Backbone of six fully duplexed OC3 (622) mbps legs, four fully duplexed OC3 connections to the Internet (maximum 2488 mbps), and staffing for the Network Operations Center. This appropriation also supports Customer Connections for the 26 Missouri public higher education institutions (10 mbps to 85 mbps), 516 public school districts (1.5 mbps to 20 mbps), and a 50 mbps connection to the State Data Center for state agency Internet access.

The MOBIUS Common Library Platform serves 98 percent of the students enrolled in Missouri's public and independent colleges and universities with free and easy access to more than 18 million volumes of library materials.

The MLN is a web-based gateway to post-secondary learning opportunities offered on campus and through a variety of distance learning technologies.

## Accomplishments

- In an effort to provide educational opportunities by providing financial assistance:
  - Facilitated disbursement of over \$41.7 million to 25,727 students in the state grant, scholarship, and loan forgiveness programs.



- Facilitated disbursement of over \$281.8 million in over 181,000 disbursements in the FFEL (Federal Family Education Loan) program through ATOM (Automated Transfer of Money).
- Provided data in response to requests for various projects intended to identify and improve service to the citizen:
  - Supported Lumina research project by supplying data regarding eligible student and award information.
  - Supported several requests from high schools regarding students' Bright Flight eligibility.
  - Provided the Department of Economic Development with an institutional program inventory for the Missouri Works web site.
  - Provided information to the state budget office regarding Gallagher recipients.
- Chartered a customer-driven group to focus on what the various customer groups wanted in a redesigned website. The recommendations from that group have been given to the web development team to begin development.
- Requested OIT to conduct a review of the departmental use of technology. The Department's ability to meet the numerous challenges presented it is based in part upon the successful application of information technology. This has tremendous potential to generate business efficiencies and increase customer satisfaction. We have begun implementing some of the recommendations from this report.

- ❑ Completed hundreds of internal improvements and provided support for Department of Higher Education staff to facilitate their ability to provide services to the citizen as efficiently as technology will allow.
- ❑ Continued training IT staff in new technologies to benefit the agency and ultimately the customer with better IT systems.

## Planned Projects

- ❑ Expect to complete development and begin implementation of the State Programs Integration Project. This will be a complete redesign of the state student financial aid administrative systems and the development of a cohesive web-based system that will:
  - Integrate application, eligibility, disbursement and reconciliation administrative processes for the major state student financial aid programs.
  - Offer students and families the ability to view current and comprehensive financial aid status whenever they want it and update their contact information directly.
  - Streamline the distribution of funds to institutions to improve not only efficiency when dealing with DHE, but also in getting funds out to students.
  - Provide high schools with information related to student eligibility.
  - Provide a comprehensive system that is available to easily be modified when new programs are established, can easily reflect data to a web site along with student loan data, will require less maintenance for everyday operations, takes advantage of current technology, and is implemented according to the DHE Software Engineering Methodology. Complete development of new website to implement recommendations.
- ❑ Plan to complete development and deployment of the redesigned website in response to the customer-focused recommendations provided by the chartered group.
- ❑ Plan to assist conversion efforts of the Missouri Student Loan Group to a new servicer. This will include the phase-out of the ATOM system that was built and maintained in-house as staff will be utilizing the new servicer's system. The new contract provides a flexible, state-of-the-art loan processing system that is capable of providing full system functionality via the Internet. This is expected to increase customer satisfaction and provide external clients with up-to-the-minute information.
- ❑ Plan to build on the recommendations from OIT's report on departmental use of information technology that were implemented in 2003, as well as implementing more of them. This will include projects such as establishing IT performance measures, implementing a standard help desk management software, and implementing an IT communication plan.

## **Accumulated Demand**

Current backlog includes changes to the program inventory system.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Department of Higher Education</i>			
Street Address		City	Zip
<i>3515 Amazonas Drive</i>		<i>Jefferson City</i>	<i>65109</i>
Main Phone Number	Main Fax Number	Website URL	
<i>573-751-2361</i>	<i>573-751-6635</i>	<a href="http://www.dhe.mo.gov">www.dhe.mo.gov</a>	
Department Director			
<i>Quentin Wilson – Commissioner of Higher Education</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>94.73 (74 currently filled)</i>		<i>500,000</i>	
Agency Mission (brief statement)			
<i>The mission of the Coordinating Board and Missouri Department of Higher Education is to provide the citizens of Missouri with the highest quality postsecondary education system resulting in a thriving economy and an outstanding quality of life.</i>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Department of Higher Education</i>		
Department CIO Name		
<i>Gina Hodge</i>		
Street Address	City	Zip
<i>3515 Amazonas Drive</i>	<i>Jefferson City</i>	<i>65109</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-526-1583</i>	<i>573-751-6635</i>	<a href="mailto:Gina.Hodge@dhe.mo.gov"><i>Gina.Hodge@dhe.mo.gov</i></a>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>N/A</i>		
IT Division Name		Website URL
<i>Information Technology</i>		<a href="http://www.dhe.mo.gov"><i>www.dhe.mo.gov</i></a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>10 currently filled</i>	<i>0</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$0</i>	<i>\$0</i>	
Security Officer Name	Phone No.	E-mail
<i>Ted Suess</i>	<i>573-522-1910</i>	<a href="mailto:Ted.Suess@dhe.mo.gov"><i>Ted.Suess@dhe.mo.gov</i></a>
Privacy Officer Name	Phone No.	E-mail
<i>N/A</i>		
ITAB Alternate Name	Phone No.	E-mail
<i>RJ Lodge</i>	<i>573-522-4638</i>	<a href="mailto:R.J.Lodge@dhe.mo.gov"><i>R.J.Lodge@dhe.mo.gov</i></a>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>N/A</i>		

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Higher Education</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>N/A</i>
PC Servers	<i>IBM Xseries with Windows 2000; Compaq with NetWare 5.1; Compaq with Windows NT</i>
Mid-range	<i>AS/400 model 500 with OS/400; AS/400 model 170 with OS/400</i>
Networked	<i>N/A</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 2000, Windows 98</i>
Dumb terminal	<i>N/A</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MAN connection</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MOREnet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Symantec/Norton Anti-Virus</i>
Desktop	<i>Symantec/Norton Anti-Virus</i>
Internet	<i>OA Firewall</i>
Help Desk Packages (Magic, GWI)	
<i>N/A</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2, SQL for imaging</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Websphere, Java, COBOL</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	

Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>N/A</i>
Telecommunications (T1, Frame Relay, etc.)
<i>Fractional T1</i>
GIS (ArcView, MapInfo)
<i>N/A</i>



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Missouri State Highway Patrol

#### **Accomplishments**

##### ***Mobile Computing Devices (MCD)/Wireless Project***

This program provides Patrol personnel across Missouri with ready access to necessary criminal justice information in a timely manner. The project funding was made available through Federal earmarks. During the year 2002 and 2003, utilizing Federal Funding, the Patrol acquired a total of 584 MCD devices for deployment to field officers.

The Patrol operates a voice radio communication system that has exceeded its saturation level for the amount of voice traffic required to support enforcement activities in the field. Officer safety is compromised in that officers may encounter dangerous individuals or circumstances without the benefit of information that could make a difference in their actions. Warrant entries are not being “hit” as the inquiry can’t be made.

This deployment of the technology has shown improvement in officer productivity by providing officers with direct, timely access to important information. Improvement of officer safety was the projects’ major goal. Another goal was reduction in radio voice communication. The deployment program has reduced the saturation level and permitted access for critical communications. This program also involved the development of an application to run on the mobile devices allowing officers to access MULES, National Crime Information Center (NCIC), Department Of Revenue (DOR) as well as perform car to Computer Assisted Dispatching (CAD), and/or car to car messaging and silent dispatch to CAD without use of radio voice communications.

In 2003 there was a project initiated and completed to upgrade 150 of the original MCDs to support Ground Positioning System (GPS), replace the existing anti-virus software, Win2000 service pack installed; new FormRunner Query tables added; Street Atlas installed and configured Forms replication and settings modified; print drivers added, and accident forms placed on the devices.

### ***Upgrade Organizational PC Infrastructure***

The ISD implemented and completed a project to replace every personal computer with a clock speed slower than 400 Mhz within the organization with 600 Mhz or better devices, acquired from the Missouri Department of Transportation. As of the close of 2003 every device in the Patrol organization is a PC with at least a clock speed of 600 Mhz and Windows 98 (a Traffic Management System requirement) on the desktop.

### ***Statewide Traffic Accident Records System/Transportation Management System Post Implementation (STARS/TMS)***

This project re-engineered the legacy STARS system to integrate with the Missouri Department of Transportation's TMS system. The project involved inter-agency cooperation with the Missouri Department of Transportation and also involved definition of changes and enhancements necessary to improve revision of the STARS system and its associated accident form.

### ***Internal Affairs Case Management System***

This system was requested by the Patrol's Professional Standards Division to automate their internal affairs process. The system was developed in Lotus Notes and tracks all complaints issued by the Patrol's civilian or uniformed members. The system also has the capability to produce various reports.

### ***National Sex Offender Registry (NSOR) Post-Implementation Support and Enhancements***

This project was initiated to define and address the post-implementation changes and enhancements necessary to improve the present National Sex Offender Registry design. The original intent of the system was to provide entry and tracking capabilities of sex offenders in their jurisdiction for the county Chief Law Enforcement Officers (CLEOs). However, the current NSOR implementation addresses only the Missouri State Highway Patrol's Criminal and Identification Division's and the FBI's National Crime Information Center's requirements to electronically update their databases. The evaluation was completed May 1, 2003.

### ***Oneform Accident Form Design***

This project developed an electronic accident form for the MSHP road officers. The electronic form designed uses Amgraf's Oneform Forms Design package contains full editing functions as well as an accident drawing feature. Road officers benefit by completing accident forms in the field on a mobile computing device in a timelier manner allowing them more road time and public visibility. Officers used to fill out a manual short form at the scene and later complete the form in a Patrol zone office.

### ***DWI Tracking System and Repository***

Phase I of this project encompasses design, development, and implementation of a DWI Tracking System and Data Repository. Three options for DWI incident information submissions were developed and included an Internet browser-based forms application, extract file interface coding and data transfer directly from law enforcement agencies'

resource management systems. The DWI Tracking System also provides interfaces for information processing from law enforcement agencies, prosecuting attorneys, circuit and municipal courts, alcohol treatment programs, DOR, Patrol Traffic Accident System, Uniform Complain and Summons audit system.

### ***AS/400 Conversion to Microsoft Office***

This project involved the conversion of all AS/400 OfficeVision documents to Microsoft Word. It also included the conversion of AS/400 email and calendaring to Lotus Notes email and calendaring. Support for OfficeVision was dropped, therefore necessitating a conversion to a different office product. The Patrol benefits by using the highly accepted Microsoft Office and Lotus Notes products that are more readily accepted as the business standard. These products allow the Patrol to communicate throughout the business world in a more expedient and efficient manner.

### ***Upgrade Weather Wire***

The National Weather Service application operated in an OS2 environment interfaced with the MULES system. This system allows law enforcement agencies to access the weather conditions in a real time on line environment. OS/2 was no longer a supported operating system and a conversion to a Windows platform was needed. The software operating in this environment in addition to no longer being supported experienced operational problems. This project involved the conversion of the Weather Wire PC applications to Windows.

### ***Automated Fingerprint Identification System/Computerized Criminal History Integration***

The Gateway Services Provider III (GSP III) interfaces with the MSHP's Automated Fingerprint Identification System (AFIS) and Criminal History Reporting System (CHRS); providing electronic receipt of fingerprint images, demographics and criminal history information; and providing for submission of electronic records to the FBI's IAFIS. The GSP III provides a number of advantages including facilitating more streamlined operations by eliminating redundant data entry of demographic and fingerprint information, thus allowing better utilization of personnel.

With the installation of Livescan and card scan devices throughout the state, demographic data, criminal history data and fingerprint images can be captured at the time of arrest and forwarded directly to the interfaced AFIS and CHRS systems via the GSP III. Operator intervention is no longer required prior to the launch of a technical search of the AFIS database. Following completion of the AFIS technical search, the CHRS database is now automatically updated with the new arrest information. Since all the necessary data is captured at the time of the arrest in the required format and forwarded electronically to the Patrol, the local agency is not required to mail a fingerprint record and the Patrol is not required to enter the arrest information and scan fingerprint images. This decreased processing time also means local and state law enforcement agencies have access to criminal history information sooner. The GSP III also allows MSHP to forward the same electronic fingerprint record to the FBI's IAFIS. Manual intervention is no longer necessary; following AFIS/CHRS processing, fingerprint records automatically are sent

to the FBI updating the IAFIS database. Again, this decreased processing time means faster access nationwide to new criminal history information.

### ***Troop Local Area Network Upgrades***

A server is located at each of the Patrol's nine troop locations and used to store shared and home directories. These servers were approximately 6 years old. In 2002 new servers were installed at three of the troops, the remaining six troops were installed in 2003, increasing the storage capacity and performance. Several applications were also moved to the troop servers to improve performance and response times.

### ***RS6000 Reconfiguration for CAD***

The number of Mobile Computing Device's (MCD's) in operation has increased the demand of usage on the Computer Aided Dispatch (CAD) system and the message switch. The officers with MCD's have availability to access CAD, which allows them to do silent dispatch and eliminate radio traffic with dispatchers. They also access the MULES and NCIC hot file systems via the message switch. The CAD system was moved to faster RS6000 nodes to improve performance. The new nodes also connected the external storage devices increasing the storage capabilities for archived calls for service.

### ***Encryption – Mules Network/MAN***

In calendar 2002 the Missouri State Highway Patrol requested and received funding for hardware and software to "encrypt" the data coming from and sent to other criminal justice agencies on public telephony networks. The encryption required a piece of hardware and software at both ends of the 406 data circuits located throughout the state. The requirement was due to Patrol utilizing the FBI's National Crime Information Center for entry and inquiry into national criminal history files and various other national criminal justice-related files (i.e., Convicted Sexual Offender Registry, Convicted Persons on Supervised Release, Historical Protection Order files, etc.). In order for the Patrol to be able to have access and entry to the national files they are required follow specific rules, guidelines and policies or face sanctions that could include exemption from use.

In the spring of 2000 the Criminal Justice Information System's Advisory Policy Board informed members "All intelligence information or criminal history record information passing through a public network segment that is not dedicated to criminal justice purposes shall be protected with encryption while in that segment." The Board indicated further that criminal history networks must be encrypted by September 2002. This directive was again repeated in March 2001. In 2002 the Patrol requested an extension of the mandate to procure funding for equipment, software and installation related to the 406 criminal justice agencies connected to the MULES network that rely upon national files in order to perform their duties. This funding request was approved in the last fiscal year. The funding allowed the Patrol to acquire the necessary hardware and software to comply with the NCIC directive and continue to provide access to national criminal justice related data. Funding allowed the Patrol to purchase of 406 encryption devices and software for local law enforcement agencies and two central site servers and software.

The Patrol started the implementation phase in calendar 2002 and completed installation of approximately 50 percent of the router installations. Work continued thru mid-2003.

The benefits are the citizens of the state of Missouri will be assured their criminal justice agencies are receiving timely information from not only the state, but nationwide sources relating to criminal histories, sexual offenders and orders of protection. This initiative also follows the Department of Public Safety's Strategic Plan Outcomes 1.1.1.1, 1.1.1.2, 2.1.1.1, 2.1.1.2, 5.1.1.2 specifically addressing reduced incidence of crimes against persons and property. The use of criminal related data will provide the criminal justice personnel with complete and timely criminal information. In addition, the utilization of national criminal data files will help state agencies develop partnerships and collaborations to help prevent violent and property crime, both in Missouri and across the nation. Data sent and received will allow the MSHP to actively participate in the Governor's Safe Missourians Show-Me Results Initiative pertaining to violent and property crime. Aggressive criminal interdiction programs will be benefited by access to national criminal justice files statewide to deter crime.

### ***Uniform Crime Reporting (UCR) Post Implementation***

Additional on-line reports were developed that describe homicides and assaults on law enforcement officers, law enforcement employment levels, law enforcement compliance to UCR reporting requirements, and distribution of seized clandestine laboratories. In addition, statistical analyses of UCR data was provided in a new annual publication entitled *Crime in Missouri*. This new publication follows the design of *Crime in the U.S.* by the FBI and replaces the *Missouri Crime and Arrest Digest* and *Missouri Crime Summary* previously published by the MSHP.

### ***Missouri Incident Based Reporting System***

A multi-year MIBRS conceptual strategy provides for the implementation of an automated web-based reporting system to collect detailed information relating to when and where crimes occurred, offender and victim demographic characteristics, weapon and drug involvement, property loss, and crime motivation. These data, once collected, will reside in a state maintained repository and be accessible by local, regional, and state criminal justice agencies in addition to Missouri citizens via Internet access. These data will impact decisions related to crime prevention, crime intervention and law enforcement.

A collaborative web based application was designed, developed, and implemented for use by the Missouri Crime Incident Based Reporting System (MIBRS) project development team consisting of staff representatives from various Missouri law enforcement agencies. The collaborative web based application provides a dedicated site that MIBRS project team members can access to communicate and exchange information regarding the project. The site allows display of group calendars, entry and modification of team member activities, posting of meeting notes, synchronous chatting, email list servers, and instant messaging. In addition, the collaborative web based application provides updates to other law enforcement agencies and interested entities on MIBRS progress and implementation plans.

The conceptual design the MIBRS central repository and its content and data model development strategy was designed through a series of Joint Application Development (JAD) sessions comprised of members of the MIBRS committee as well as site visits to existing programs in other states. Through these efforts, repository requirements were documented and included detail data specifications, recommendations for data model, reporting techniques, architecture, infrastructure, process changes, and systems integration strategies. CHRS Post Implementation Enhancements

The project was initiated to complete post implementation tasks for the Criminal History Record System (CJ25). Tasks included:

- ❑ Complete System Test for Interfaces and "Hold" Files
- ❑ System "Changes" Identified During the Initial Project
- ❑ Coding Additional Priority 2, 3, and 4 FOCUS and WebFOCUS Reports
- ❑ Conducted a Transition Code Walk-Through with the entire project team
- ❑ Addressed Priority System "Bugs" encountered during Post-Implementation period

### ***School Bus Inspection System***

This project involved the re-writing of HP07 School Bus Inspection System, which had used the AS400 for data entry for inspections, re-inspections, district addresses, inspection scheduling, and maintaining district code files. This information was Remote Job Entered to a tape. Several reports were ran after downloads and the school bus letters was generated using Job Control Language that accessed the tape and generated several focus programs on the mainframe. Lotus Notes was used for the rewrite of this system allowing data to be kept more organized in a central location and provide a user-friendly environment. Changes were made without transferring data from one platform to the other.

## **Planned Projects**

### ***Move Logscan Processing to RS6000***

The Patrol is required to "log" or record each and every transaction coming into or out of the MULES system. This project is to move the existing log scan processing from the State Data Center's MVS mainframe to the RS/6000 located at the MSHP. This is required for financial, security, and privacy reasons. Log data will be transferred via IBM's Message and Queuing (MQ). Searches will need to be developed on the RS/6000 and reports created to satisfy Security and Quality Control requirements.

### ***Mainframe Resource Management***

The Patrol operates the majority of their application systems at the Office of Administration's State Data Center, which has a usage sensitive cost recovery system. With access to state finances being very competitive, this project was initiated to identify and monitor all SDC mainframe chargeable resources such as disk space, tape storage,

CICS transactions, CPU utilization, and software usage. New disk and tape management methods will be developed. Procedures to monitor and report storage capacities will be developed. Data will be collected to show trends to help in performance, budgeting and capacity planning.

### ***Patrol Investigative System***

This system is used for capturing arrests, narcotics, forfeitures, seizures and polygraph data. This database will produce the Arrest/Incident/Investigation report, the Polygraph report and the Buy/Bust report to be supplied to the prosecutor. This database will also search reports including narratives for commonalities as requested. The system is being developed to reduce redundancy of data entry and to track all information related to an arrest, investigation or incident all in one place.

### ***Disaster Recovery Plan***

This project is to hire independent contractors to build the base for a Disaster Recovery Plan for ISD operational functions for continued support of the Patrol in times of disasters. Assigned duties, time frames, costs, personnel required, etc., will be identified and the Disaster Recovery Team will be operational if and when a disaster should strike the Patrol complex. Items being addressed are equipment, software, office area space, lack of availability to key personnel or all personnel, and general needs in the event of a disaster. The outcome will also provide the basis for developing a financial plan for the procurement of the resources necessary for the continued operation of the Patrol's IT infrastructure.

### ***Statewide Advantage for Missouri (SAM II) Outstanding Tasks***

This project was initiated to address the state's SAM II accounting system's related activities, which remain unresolved following Phase I and Phase II implementations of SAM II. Activities include but are not limited to: Time Accounting Interface, Base Financial Data Warehouse and Reporting Module, Human Resources/Payroll Priority 3 Reports, Inventory System Data Conversion & Interface, and a SAM II Documentation Database.

### ***Criminal Lab Division Notes Enterprise***

This project was initiated to conduct analysis for a Lotus Notes-based enterprise system to address the Patrol's Lab's data processing needs. This project addresses all automation processing requirements for the Lab. In addition, the new Crime Lab Information Management System will be integrated with a newly designed Notes-based Property Control Inventory System.

### ***Application Data Warehouse Migration from State Data Center***

This project will be initiated to migrate the Uniform Crime Reporting (UCR) Data Repository / Data Warehouse files from an MVS/DB2 environment at the State Data Center, to an AIX/DB2 environment at the Patrol.

The scope of this project encompasses the following:

- Database development on AIX

- ❑ Data Migration
- ❑ Master and Access File Description Transition
- ❑ Copy Job Migration
- ❑ FOCUS code Migration
- ❑ Testing in the New Environment
- ❑ Misc. Related Activities

### ***Fixed Asset / Statewide Advantage for Missouri (SAM II) Integration***

This project was initiated to complete the Interface and Data Conversion from an unsupported application to SAM II in order to meet the Fixed Asset Requirements of SAM II. The SAM II team identified Agency requirements for this interface.

### ***Terminal Configuration***

This project is to complete, test, and implement terminal configuration and Originating Agency Identifier (ORI) component, which will replace the legacy terminal configuration system. Once implemented, the legacy system will be available for inquiry only. The new system will automatically keep legacy system up-to-date. The legacy system will be needed until all current code that uses it is replaced to use the new terminal configuration and ORI systems.

### ***Migrate Patrol Disk Storage***

Migrate all data stored on disk devices from the IBM Shark Storage system to IBM FastT for financial and security purposes. With the implementation of the project the fiscal outlay for Patrol disk storage at general headquarters will be significantly less expensive and will increase the storage capacity by three times.

### ***AIX Systems Migration***

Migrate all AIX systems from IBM RS/6000 SP frames and RS/6000 B50's to IBM P-Series 650 devices. Includes upgrades from AIX 4.3.3. to AIX 5.2 and allows usage of Logical Partitioning (LPAR) technology.

### ***Cisco Director Class Switch***

Replace lesser-sophisticated inline data switches with a Cisco director class switch. This configuration manages and controls the Storage Area Network (SAN) allowing more throughput and better manageability of data transfer throughout the network. The project reconfigures all the servers and storage on the SAN to run through the directory switch.

### ***APS Voice Software Deployment***

Install and configure APS voice software on previously deployed MCD's. This software verbally alerts road officers to incoming hot file hits allowing them to focus their attention on the road and situation at hand.



### ***MSHP Website Redesign***

This project is to redesign the Patrol's current website. Consideration will be given to the proposed new design of the State Web Site and e-Government standards. The new website will accommodate static text, links, and ultimately accommodate interactive internet and intranet applications. It will contain a "members only" section for Patrol Employee access. In addition, Patrol "entities" should be capable of maintaining their own portions of the site, with approval being granted by the Patrol's Public Information and Education Division.

### ***FORMRunner Query Client Code Enhancements***

This project will be initiated to enhance the FR Query Client code resident on MCD devices to address the following:

- ❑ When sending a message (car-to-car or car-to-troop), the hand obscures the "Nack" button so it is difficult to tell if the transmit was successful. No messages are displayed.
- ❑ The "Officer Status" fails to change on the Computer Aided Dispatching (CAD) system at the MCD level with regards to whether the officer has someone stopped or is back available for service again. In checking in with the Troop, the CAD system does reflect the current status, but the CAD status does not match the status on the MCD. It has been determined that this is NOT a CAD problem.
- ❑ Officers would like a message notifying them when a car-to-car message has been sent successfully.

### ***NOTES 6 Upgrade***

This project will install and configure new Notes servers for all Notes applications. The new operating system will be Linux. The upgrade Notes to 6.0 will include moving e-mail to a separate server.

### ***Upgrade Content Manager to Version V7.2 to 8.1***

This requires existing data to be migrated to new table formats, elimination of the library server, and web enabling clients. Investigate if this can include an interface to the Automated Fingerprint Identification System's Gateway Service Provider, storage of National Institute of Standards and Technology records and remote access to image database.

### ***Investigate New Incident Number & Process:***

This project will be initiated, at the request of Patrol's technology bureau, to investigate the impact of changing the current number scheme and process for Incident Numbers. The new proposal is to utilize CAD as the Number Generator, utilize the Calls For Service Number format (yymmdd-nnnnn), and continue to utilize legacy Incident Identification System to store incident information and link supplemental records. The Patrol's Communications and Information Systems Divisions will investigate the impact to CAD, Incident Identification System, and other applications currently using the

Incident Number. Options and recommendations will be provided as to a revised approach for assigning incident numbers. A subsequent Customer Service Request and project will be initiated at the conclusion of this process to address implementation of the selected approach.

### ***Internet Domain Name Change***

A project will be initiated to investigate changing Internet domain name to meet Office of Administration standards. This project will also include changing the web name, DNS and e-mail addresses to meet the new Office of Administration standards after they have been defined.

### ***Accident Form - Electronic Workflow***

This project will be initiated to automate the electronic workflow of the Accident Form from the MCD, through the approval process, into STARS/TMS, and back if necessary. This project will include workflow definition, testing, implementation and a roll-out plan. This project is closely tied to the MSHP Forms Portal project and the STARS/TMS Enhancements for Auto Entry.

### ***Trooper Selection Program - TSP***

The Trooper Selection Program project automates the Trooper Selection application process. It will be an Internet application that interacts with back-end legacy applications to automate the application process for the applicant, and electronically performs much of the functionality that is currently a manual process for Human Resources staff. High-level design of the TSP was completed in 2003 through IBM's Electronic Transaction Processing (e-TP) / Electronic Business System Architecture (EBSA) process. Detailed design and development efforts are anticipated to begin in the March / April 2004 timeline. MSHP will utilize the WebSphere development environment for this project.

## **Accumulated Demand**

### ***Criminal Justice Information System Interface to MULES***

The Office of State Court Administrators has received grant funds administered by the Violence Against Women Office (VAWO) for \$275,000. This grant is to be used to develop of electronic warrants from the CJIS Case Management system to MULES and then on to the National Crime Information Center's protection order file. This project will consist of developing the communications interface between CJIS and MULES and the development, modification, testing and implementation of the application that will be needed to automate the process.

### ***CINCOM Transition Strategy***

A project to be initiated which analyzes the Patrol's inventory of applications utilizing CINCOM products such as Mantis, SUPRA, etc., and developing a strategy for transition out of the CINCOM product line and into newer technologies supported by the State Data Center. This request does NOT address implementation of the strategy defined.

### ***Network Diagnostics/Capacity Planning***

Researching, demonstrating, purchasing and installation of network management software and hardware that will enable us to troubleshoot our network issues and monitor the performance. Service Level Agreement's with the members of the cooperative network require us to provide reports to the member agencies as to the status of the network.

### ***Network Redundancy***

The Network Redundancy project consists of addressing as many single points of failure as possible. Dual power supplies and dual supervisors have been installed on all core routers. Dual switches have been placed between the public and private sides of the network. The new state network contract will have redundancy built in the form of redundant paths across the state in the event of circuit failure. To complete the project we will be installing a new core switch that will feature redundant power, redundant supervisors and supervisor memory.

### ***Internet Activity Reports***

Request a project be initiated to develop statistical reports depicting Internet activity. The following reports have been identified, with details provided on an attached IOC from the Patrol's Research and Development Division dated May 24, 1999: 1) Internet Exploration, 2) E-Mail Received, and 3) E-Mail Sent.

This CSR addresses the following tasks:

- ❑ Determine data volumes and logging requirements for the information requested on these reports.
- ❑ Where possible, develop each report by Division, by Commander, and by employee, to be produced on a monthly basis.
- ❑ Determine which reports and/or data are not feasible to be produced as requested. Document the data / reports and the reasons why it is not feasible or recommended to do so.

### ***Supply Order and Requisition***

This project will develop an application to address the supply order and requisition process. The current process includes management of Universal Asset Tracker's Inventory Manager and Personnel Tracker software, as well as an AS/400 database and associated Patrol form. Supply items, quantity, etc. is currently maintained in the Inventory Manager application. Any supplies that can be requisitioned by Patrol entities are "duplicated" in an AS/400 database. Patrol Troops and Divisions then requisition supplies by cutting & pasting information from the AS/400 database to the designated Patrol form. This begins a process of numerous paper flows.

Since the AS/400 solution represents a duplication of effort, is awkward to use, and is at risk since Office Vision is no longer supported, an alternate solution is desired. In addition, the UAT software is also "at risk", since the vendor is no longer in existence. The recommended solution is a Lotus Notes based application to replace the AS/400 files and address the requisition process flow. Ultimately, the UAT software functionality

would be "consumed" as modules within the Notes application. Since a data conversion from Access to Notes is required, an initial phase of the project might be to schedule the conversion jobs, build the AS/400 replacement module, and maintain the UAT functionality until a later phase. Another consideration for the UAT module is to consider this in the Patrol's overall Inventory Consolidation project. With this in mind, the two-phase approach to this request may be most desirable.

### ***ADVANTAGE-Gen CE to CSE Migration***

This project was initiated to investigate the feasibility of, and process for migrating away from the ADVANTAGE:Gen Central Encyclopedia (CE) currently being utilized on MVS at the State Data Center. Client / Server Encyclopedias (CSE) are available on platforms such as AIX and NT, that are now fully compatible with CE functionality. Moving to this platform will give MSHP full control of Model Management, Backup, and Administration capabilities on a local platform, and will eliminate related Data Center costs as well as relieving Data Center responsibilities associated with coordination of MSHP ADVANTAGE:Gen models.

### ***CAD Reporting Module***

This project was initiated to develop a customized reporting interface against the CAD archived files. MSHP currently only has access to "canned" CAD reports which do not always meet the requirements of Communications Division, as well as outside requests to the Keeper of Records for CAD information. This reporting interface would be a browser-based solution utilizing the WebFOCUS technology being deployed as a reporting interface throughout the organization.

### ***Inventory System Consolidation***

Request a project be initiated to analyze the multiple automated systems currently utilized by MSHP to track inventory or fixed assets, and develop a plan for consolidating these systems down to one or two applications if possible. The study should consider that the Universal Assess Tracking system is no longer vendor supported. The solution should accommodate the bar coding interface currently utilized with UAT if possible. The solution should also include parameters for necessary data conversions, and interface requirements of SAM II.

### ***Officer Activity Data Warehouse Migration***

Data Warehouse Migration is to be initiated for migration of the Officer Activity Racial Profiling Data Repository / Data Warehouse files from an MVS/DB2 environment at the State Data Center, to an AIX/DB2 environment at the Patrol. The scope of this project encompasses the following:

- ❑ Database development on AIX
- ❑ Data Migration
- ❑ Master and Access File Description Transition
- ❑ Copy Job Migration
- ❑ FOCUS code Migration
- ❑ Testing in the New Environment
- ❑ Misc. Related Activities

### ***Statewide Advantage for Missouri (SAM II) Data Warehouse Migration from SDC***

Request has been made for a project to be initiated migrating the SAM II Data Warehouse files from an MVS/DB2 environment at the State Data Center, to an AIX/DB2 environment at the Patrol. The scope of this project encompasses the following:

- ❑ Database development on AIX
- ❑ Data Migration
- ❑ Master and Access File Description Transition
- ❑ Copy Job Migration
- ❑ FOCUS code Migration
- ❑ Testing in the New Environment
- ❑ Misc. Related Activities

### ***ISD Standards Automation Tool – Post Implementation Modules***

This requested project is to initiate the redesign of the ISD policy and standards manual to accommodate standards for new technologies and practices, as well as facilitate prompt updates and staff access to the standards.

### ***Implementation of ADVANTAGE:Gen 6.0***

Install, test, and implement ADVANTAGE:Gen 6.0. Test ADVANTAGE:Gen 6.0 with new version of DB2. Upgrade all PC's currently using ADVANTAGE:Gen 5.1. Consider impact to Model conversions, MVSIT, ROB Component, and availability for clients to run in Windows 2000 OS.

<b>General Department Profile (2003)</b>			
Department Name			
<i>Missouri State Highway Patrol a Division of the Department of Public Safety</i>			
Street Address		City	Zip
<i>1510 East Elm Street</i>		<i>Jefferson City</i>	<i>65109</i>
Main Phone Number	Main Fax Number	Website URL	
<i>(573) 751-3313</i>	<i>(573) 751-9419</i>	<i>www.mshp.state.mo.us</i>	
Department Director			
<i>Colonel Roger D. Stottlemire, Superintendent</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>2,050 within the Highway Patrol</i>		<i>Directly or indirectly all.</i>	
Agency Mission (brief statement)			
<i>Dedicated to Service and Protection</i>			

## Department CIO and IT Division Profile (2003)

Department Name		
<i>Missouri State Highway Patrol</i>		
Department CIO Name		
<i>Clifford R. Gronauer</i>		
Street Address	City	Zip
<i>1510 East Elm Street</i>	<i>Jefferson City</i>	<i>65109</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>(573) 526-6200</i>	<i>(573) 526-6274</i>	<i>gronac@mail.state.mo.us</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
IT Division Name		Website URL
<i>Information Systems Division</i>		<i>www.mshp.state.mo.us</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>Eighty-two (82)</i>	<i>None</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$26,738,090</i>	<i>\$15,154,864</i>	
Security Officer Name	Phone No.	E-mail
<i>Tim Schlueter</i>	<i>(573)751-3313</i>	<i>schlut@mshp.state.mo.us</i>
Privacy Officer Name	Phone No.	E-mail
<i>Tim Schlueter</i>	<i>(573)751-3313</i>	<i>schlut@mshp.state.mo.us</i>
ITAB Alternate Name	Phone No.	E-mail
<i>Vic Buechter</i>	<i>(573)526-6201</i>	<i>buechv@mail.state.mo.us</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Clifford R. Gronauer</i>	<i>(573)526-6200</i>	<i>gronac@mail.state.mo.us</i>

## ***Department Technology Profile (2003)***

Department Name

*Missouri State Highway Patrol a Division of the Department of Public Safety*

Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)

Mainframe	<i>State Data Center IBM 390 with MVS</i>
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PC Servers	<i>RS/6000 with AIX, Windows NT, Linux</i>
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Mid-range	<i>AS/400 with OS/400, RS/6000 with AIX and Linux</i>
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Networked	<i>RS/6000 with AIX and Linux, Windows NT</i>
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Desktop (Windows XP, 3270, Linux, etc.)

PC	<i>Windows 98/2000/XP and Linux</i>
----	-------------------------------------

Dumb terminal	<i>None, Outside agencies being served have some</i>
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Network Protocols (TCP/IP, SNA, IPX, etc.)

*TCP/IP, SNA,*

Internet Connections (DSL, Cable, Dialup, etc.)

*Cable, Dialup*

Internet Service Provider (MORENET, AOL, etc.)

*MORENET*

Security Provisions (packages, anti-virus, filters)

Network	<i>McAfee, Firewalls, Encryption, VPN, IBM Everyplace Wireless</i>
---------	--

Desktop	<i>McAfee Virus Scan</i>
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Internet	<i>McAfee, Firewalls, Encryption</i>
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Help Desk Packages (Magic, GWI)

*Allen Systems' IMPACT*

Database Management Systems (DB2, Oracle, SQL, etc.)

*DB2, Oracle, SQL, SUPRA, ACCESS*

Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)

*COBOL, CICS, Advantage Gen, Websphere, Focus, Web Focus, Vision Results, Mantis, Java*

E-Mail Packages (Exchange, Lotus Notes, etc.)

*Lotus Notes*

Encryption Packages (SSL, PGP, etc.)



<i>VPN, SSL, IBM Personal Communications and Everyplace Wireless</i>
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>Librarian at the State Data Center</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1, Frame Relay, VTAM, MAN</i>
GIS (ArcView, MapInfo)
<i>GPS</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### House of Representatives

#### **Accomplishments**

##### *Network Migration*

- ❑ Migrated from a Novell Network to a Microsoft Network using Active Directory.

##### *Security*

- ❑ Implemented a program called UpdateExpert for Patch Management
- ❑ Deployed a Virtual Lan to segment ourselves from the Senate and Legislative Research Network.
- ❑ Installed a Cisco PIX firewall.
- ❑ Formed a General Assembly Security Advisory Board with the Senate and Legislative Research.

##### *E-mail*

Deployed a Microsoft Exchange 2003 server. This new e-mail system has given us a lot of new functionality including web access, delegated rights, mobile devices access, shared accounts, and a whole lot more.

##### *Acceptable Use Policy*

The Administration & Accounts Committee approved a new Acceptable Use Policy designed to make our network much more secure.

##### *Help Desk System*

We implemented a new Help Desk system that captures the information to track response time, problem escalation, etc. It also gives the technicians access to help desk calls via the

intranet, automatically text pages the technician when a call is assigned to them, and automatically e-mails the user when a call is opened or closed. There is also a module that allows users to enter help desk tickets via the intranet.

### ***Adopted a formal Software Development Life Cycle***

We have implemented the following stages of development:

- ❑ Requirements Analysis and Definition
- ❑ System Design
- ❑ Program Design
- ❑ Program Implementation
- ❑ Program Testing
- ❑ Functional Testing
- ❑ System Testing
- ❑ System Delivery
- ❑ Maintenance

### ***Constituent Management System***

We developed and deployed a new software program that facilitates communication between our members and their constituents.

### ***Upgraded Hardware Infrastructure***

1. Added 100 Network Ports
2. Replaced antiquated Uninterruptible Power Supply
3. Replaced oldest PCs on network
4. Deployed a fax server to lower faxing costs

### ***Project Management***

Implemented electronic project management systems to track Information System's projects.

### ***Internal Applications***

Reprogrammed numerous applications that are used for bill filing, amendment filing and document management.

### ***Internship Program***

Established a very successful internship program that has provided manpower for our technology projects at little to no cost to the state.

## **Planned Projects**

### ***Website Redesign***

We will be adding more functionality for constituents to interact with our website as well as adding a Speaker's page and Chief Clerk Page.

### ***Wireless Network***

We are currently evaluating several plans that would institute wireless connectivity within the House.

### ***Chamber Software Upgrade***

We will be upgrading the proprietary software used with the chamber voting system and display board.

### ***Bill Tracking System***

We are planning a joint bill tracking system with the Senate.

### ***Cyber Security Audit***

We are planning to conduct a security audit within the House.

### ***Intranet***

We are replacing the current Intranet site with a portal. We also are adding an IS section to the site that will keep our users informed of the current status of all IS projects.

### ***Virtual Private Network***

Our plan is to deploy Microsoft's virtual private network using one of our Windows 2003 servers.

### ***Pilot Program on TabletPCs***

## **Accumulated Demand**

The following projects are on hold due to the current budget constraints.

- ❑ Intrusion Detection System
- ❑ Non-liquid Fire Suppression system for data center
- ❑ Upgrade Operating Systems to Windows XP
- ❑ Upgrade MS Office to Office XP/ 2003

<b><i>General Department Profile (2003)</i></b>		
Department Name		
<i>Missouri House of Representatives</i>		
Street Address	City	Zip
<i>State Capitol</i>	<i>Jefferson City</i>	<i>65101</i>
Main Phone Number	Main Fax Number	Website URL
<i>573-751-3659</i>		<a href="http://www.house.mo.gov">www.house.mo.gov</a>
Department Director		
<i>Catharine Hanaway- Speaker of the House</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>Approx. 400</i>		
Agency Mission (brief statement)		

<b>Department CIO and IT Division Profile (2003)</b>		
Department Name		
<i>House Information Systems</i>		
Department CIO Name		
<i>David Crain</i>		
Street Address	City	Zip
<i>State Capitol- Room B-16</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-2357</i>	<i>573-751-3292</i>	<i>david.crain@house.mo.gov</i>
<b>CIO Membership in Professional Associations – Leadership Role Involvement</b> (i.e., NASCIO – serve on architecture standards committee)		
ITAB, ARC		
IT Division Name		Website URL
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>17</i>		
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
Security Officer Name	Phone No.	E-mail
<i>James Ransdell</i>	<i>751-2357</i>	<i>james.ransdell@house.mo.gov</i>
Privacy Officer Name	Phone No.	E-mail
<i>James Ransdell</i>	<i>751-2357</i>	<i>james.ransdell@house.mo.gov</i>
ITAB Alternate Name	Phone No.	E-mail
<i>Scott Skinner</i>	<i>751-2357</i>	<i>scott.skinner@house.mo.gov</i>
SDC Steering Committee Rep Name	Phone No.	E-mail

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>MO House</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Windows Advanced Server 2003</i>
Mid-range	<i>ISeries 820 (AS/400)</i>
Networked	<i>Microsoft Active Directory</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 200</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Network connection to OADIS</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>OADIS</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Cisco PIX Firewall</i>
Desktop	<i>Update Expert, SUS, Symantec</i>
Internet	
Help Desk Packages (Magic, GWI)	
<i>Custom Developed</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>RPG. VB.net</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange 2003</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	

Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>Source Safe</i>
Telecommunications (T1, Frame Relay, etc.)
GIS (ArcView, MapInfo)



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Insurance

#### ***Introduction***

The mission of the Information Services section of the Missouri Department of Insurance (MDI) is to develop and establish procedures, rules, policies, systems and services related to computer and other technologies that help satisfy the critical achievement requirements of Information Services customers throughout the department. Furthermore, Information Services must fulfill the traditional data processing mission of providing a dependable, efficient and secure computing and communication infrastructure; acting as stewards for the department's data and information resources.

#### ***Background***

The MDI's Information Services section supports the department's core business and regulatory functions and consists of mainframe and mini computers, local-area networks, wide-area networks and approximately 220 personal computers. The MDI systems and programming staff share mainframe computer resources provided by the Office of Administration's Technical Services group.

MDI's primary information system resides on a client/server system running Windows2000 and the Oracle database suite. This system consists of insurance producer licensing modules, company licensing and monitoring modules, consumer complaint and information modules and tax and data collection systems amongst others. Personal computers are an integral part of the MDI network and are used for a wide variety of personal productivity and automation activities such as word processing, data analysis, and provide the gateway to locally networked, mainframe and Internet applications.

### **Accomplishments**

#### ***Information Infrastructure***

- ❑ ***Networking and Communication*** - As growth in the use of remote personal computers to access MDI's central database continues, response times at our remote offices degenerate. During the year, the MDI successfully upgraded the data communication lines between Jefferson City and Kansas City as well as St. Louis

resulting in a noticeable improvement in response times as well as facilitated the deployment of additional system services such as the MDI Phone Call Tracking system.

- ❑ ***Servers, Storage and Disaster Recovery*** - As MDI employees discover new and innovative uses for information technologies, the demand for increased storage expands - on the individual's PC as well as on the MDI network. In turn, the increased reliance upon computerized storage demands improved techniques of protecting data. During the past year, automated centralized data backup software was deployed to embrace MDI employees' desktop data and two backup tape drives were added to the network to handle the increased loads. These additions not only provide a safer data environment throughout the MDI, they help reduce cost by eliminating the time-consuming individual backups and the associated storage media.
- ❑ ***Security Initiatives & Upgrades*** - In conjunction with protecting MDI servers from virus and other attacks we upgraded all MDI servers from Windows NT4 to Windows 2000, applying security and other patches automatically. With increased reliance upon personal computers within the MDI, we are beginning install and "push" Microsoft updates to PC's across the network, thereby speeding the delivery of current security and bug-fix patches and assuring all PC's are updated.

### ***New Systems/Software Implementation***

- ❑ ***Migration of Legacy Systems to Oracle*** - MDI maintains several legacy systems in the State Data Center's mainframe environment. These systems were developed several years ago using technology that has since become obsolete and skills that have become rare and expensive. The project migrated these systems to MDI's Oracle environment and provides improved user interfaces as well as several enhancements to processing and reporting. Major systems converted include: Premium Tax and associated Tax Credit applications, Medical Malpractice Reporting, and Property & Casualty Filing Tracking & Invoicing and Title Plant Tracking.
- ❑ ***Insurance Company and Producer History*** - The MDI maintains historical files of insurance company transactions as well as agent and broker licensing and activity. The data in these files is often crucial to Market Conduct and Consumer Affairs investigations and citizen inquiries. This project converted the legacy data formats to modern relational formats and presents the historical records in a user-searchable system for easy record retrieval and review.
- ❑ ***Common Architecture:*** The purpose of this on-going project is to improve the submission of data to NAIC's nationwide databases by utilizing common or standard national computer system architecture. Common Architecture established data standards and rules, simplified the process of data transmission and dramatically reduced errors. This effort has produced a more accurate and up-to-date national database to assist regulators in policing the insurance marketplace. During the current phase of implementation, consumer complaint data has been targeted and the MDI is in final testing with the NAIC.
- ❑ ***Office Automation Projects***
  - ***Market Conduct Examination Tracking:*** The MDI Market Conduct group oversees and regulates insurance company activity in the marketplace. A critical part of that function includes the scheduling, conducting and tracking of examinations and investigations requiring methodical adherence to governing

rules as well as cooperation amongst states. In support of the examination effort, a Market Conduct Exam Tracking System was developed to record each proposed and called examination as well as calculate and provide reminders of various notifications and follow-up dates.

- **Timekeeping System:** The MDI Timekeeping System, a Lotus Notes/Domino based system originally developed and shared by the Missouri Public Defenders Office, provides electronic forms, eMail submission and approval routing, and an automated interface to the statewide SAMII system. Benefits of this system include a reduction in errors, speedy approval and the elimination of time-consuming manual timekeeping activities.
- **Leave Request System:** In conjunction with the Automated Timekeeping System, an automated Leave Request System was developed leveraging Lotus Notes/Domino's inherent workflow/routing capabilities. This system provides a quick, easy and automated method of preparing, submitting, approving and tracking employee leave requests. Future plans include integrating the Leave Request System with the Automated Timekeeping System.
- **Electronic In/Out Board:** Today's hectic schedules coupled with the increasingly ad hoc nature of our work teams demand the ability to determine the whereabouts of key personnel at any time during the workday. While electronic calendaring provides an adequate method of scheduling predetermined events such as meetings, calendaring is not conducive to the ad hoc nature of many activities. The Electronic In/Out Board is a computerized presentation of the tried and true In/Out boards used in many offices. This system is complete, tested and deployed within the I.S. section with plans to provide it to various work groups through out the department in the coming year.

### ***Internet Initiatives***

- ❑ **Website Accessibility:** Redesigned the MDI web site to make it compliant with state and federal guidelines and accessibility standards, including the Missouri web development guidelines, XHTML 1.0 Strict Standards, CSS 2.0 Specifications, and Section 508 Standards for Accessibility.
- ❑ **HMO and Medical Malpractice reports:** Added HMO and Medical Malpractice reports to the MDI web site. The reports display the HMO annual report information created by the MDI Managed Care section, and the Medical Malpractice annual report information created by the MDI Statistical section.
- ❑ **MDI web site enhancements:** Added to the MDI web site the following enhancements: improved navigation to the website and reorganization along functional lines, added automated news release program for Public Information, added an XML news feed to the MDI website to allow the State portal and other news readers to get automatic updates on our news releases and announcements, created interactive spreadsheet to facilitate Continuing Education Providers submit course rosters to MDI Licensing, created Teen Insurance mini-site within MDI website to help educate teens about insurance issues.

## **Planned Projects**

### ***Surplus Lines Reporting On-Line***

The Missouri Department of Insurance requires reporting of all Surplus Lines company transactions and tax returns that result in a large amount of data entry for the companies as well as the MDI. The scope of this project includes developing an interactive application that is accessible, with adequate security, by way of the Internet; allowing the Surplus Lines Appendix I and Appendix III forms to be prepared and submitted to the Department on-line and subsequently be audited and transferred to the database.

### ***Premium Tax and Tax Credit Calculation & Filing***

The Premium Tax system, which was recently migrated from the State Data Center mainframe computer, collects tax-related information from all insurance companies licensed to do business in Missouri. MDI staff verifies the tax return data and the system coordinates with the tax payments collected by the Department of Revenue. The scope of this project will allow all types of insurance companies to complete their premium tax forms on-line, including entering all premium tax credit information.

### ***Electronic Non-Resident Licensing***

As part of its eGovernment initiative, the MDI is collaborating with the National Insurance Producers Registry (NIPR), a branch of the National Association of Insurance Producers (NAIC) to provide Electronic Non-Resident Licensing by way of the Internet. Importantly, this project will not only satisfy customer demand, but it will also server as the pilot for Electronic Funds Transfer and the planned Electronic Resident Licensing system.

### ***Medical Malpractice Forms Filing***

The MDI requires reporting of medical malpractice claims by insurance companies on a mandatory form. The scope of this project includes developing an interactive application that is accessible, with adequate security, by way of the Internet; allowing the Medical Malpractice form to be prepared and submitted to the Department on-line and subsequently be audited and transferred to the database.

### ***Missouri Insurance Department Invoicing System (MIDIS)***

With the conversion several legacy systems to the relational database environment comes an opportunity to consolidate various invoicing systems into one, common department wide invoicing system. That system, as it develops, is known as MIDIS. Its component modules will include Cash Receipts, Filing Fees, Examination Billings and automated SAMII updates and reporting.

### ***Office Automation***

Additionally, several additional office automation projects are planned to improve scheduling and control while streamlining approval processes. The current list of projects includes: Purchase Requests, Travel Requests, Expense Reporting, Speaker Scheduling, Employee Skills & Training, and HR Support Resources.

## **Accumulated Demand**

MDI currently has a considerable backlog of IT requests. Most of these requests originate in functional areas of the department and include in-house application development, maintenance to existing programs, network and security maintenance, PC software and hardware troubleshooting as well requests to purchase PC equipment and software. Additionally, several enhancements have been requested to recently converted legacy systems. In order to succeed in meeting the needs of the department with the limited number of IS resources available, MDI supplements the IS staff with contracted services as requirements dictate.

### ***General Department Profile (2003)***

Department Name

*Missouri Department of Insurance*

Street Address

*301 W. High St*

City

*Jefferson City*

Zip

*65109*

Main Phone Number

*(573) 751-4126*

Main Fax Number

*(573) 751-1165*

Website URL

*www.insurance.mo.gov*

Department Director

*Scott B. Lakin*

Number of FTE (entire department)

*223*

Approximate number of citizens served

*100,000's*

Agency Mission (brief statement)

*The mission of the Missouri Department of Insurance is to promote competition where it works and to implement regulation where competition fails so that consumers can make informed insurance purchasing decisions based on price and quality. To accomplish that mission, the department strives to: 1) ensure that consumers get the benefits for which they paid; 2) ensure competence and trustworthiness of insurance professionals; 3) ensure consumers have access to affordable and suitable coverage; and 3) ensure that insurance companies remain financially solvent so that customers get their claims paid.*

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri Department of Insurance</i>		
Department CIO Name		
<i>Tim Dwyer</i>		
Street Address	City	Zip
<i>301 W. High St</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>751-1952</i>	<i>526-3416</i>	<a href="mailto:Tim.Dwyer@insurance.mo.gov">Tim.Dwyer@insurance.mo.gov</a>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
IT Division Name		Website URL
<i>Information Services</i>		
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>12</i>	<i>0</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>Not Available</i>	<i>Not Available</i>	
Security Officer Name	Phone No.	E-mail
<i>Willis Doss, Jr.</i>	<i>751-1952</i>	<a href="mailto:Willis.Doss@insurance.mo.gov">Willis.Doss@insurance.mo.gov</a>
Privacy Officer Name	Phone No.	E-mail
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<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Insurance</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>IBM 390 via the SDC</i>
PC Servers	<i>IBM, Dell (Windows 2000)</i>
Mid-range	<i>None</i>
Networked	<i>IBM, Dell, Gateway (Windows NT &amp; Windows 2000)</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Dell, Gateway (Windows 2000)</i>
Dumb terminal	<i>None</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Cable, Remote Dialup</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MoreNet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAfee ePolicy; Windows Security</i>
Desktop	<i>McAfee</i>
Internet	<i>PIX &amp; AIX Firewalls via the SDC, VPN</i>
Help Desk Packages (Magic, GWI)	
<i>Blue Ocean: TrackIT</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Oracle Developer, PL/SQL, MS Access, VB, Lotus Notes/Domino, Java/JavaScript, Dreamweaver</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Lotus Notes/Domino</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>Lotus Notes Encryption</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	



<i>None</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1 lines to KC &amp; STL + T1 to KC-NAIC (Nationwide StateNet)</i>
GIS (ArcView, MapInfo)
<i>Atlas GIS, Geo Access</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Labor and Industrial Relations

#### ***Overview***

The Vision of the Department of Labor and Industrial Relations is to be the nationwide leader in providing the best working environment for all Missourians.

The Mission of the Department of Labor and Industrial Relations is to provide safe and healthy workplaces and ensure economic security for all Missourians by promoting equal access to jobs, enforcing anti-discrimination laws and awarding payment of compensation to those unemployed, injured at work and victims of crime.

The Department of Labor and Industrial Relations, through the: Labor and Industrial Relations Commission; Division of Labor Standards; Board of Mediation; Division of Workers' Compensation; Division of Employment Security; Governor's Council on Disability; Commission on Human Rights; Office of Information Systems and Administration has impact on potentially *ALL* citizens in the State of Missouri. Additionally, the Department provides informational assistance to federal agencies that potentially impact citizens across the nation.

During 2003 the Department of Labor and Industrial Relations continued its progress on developing systems, implementing procedures, and providing electronic processing for its customers. The following are accomplishments, within the Office of Information Systems, for calendar year 2003:

### **Accomplishments**

#### ***Unemployment Insurance Initial Claims***

The Department of Labor and Industrial Relations continues the E-Government process of accepting Unemployment Insurance Initial Claims via the Internet. This implementation allowed Missouri to be the *first* State to provide a "Hands-Off" process for filing initial claims over the Internet. Since implementation the Department of Labor and Industrial Relations has processed a total of 169,004 claims via electronic submission through November 24, 2003. This has allowed the Department of Labor and Industrial

Relations to realize 1-800 toll charge savings of approximately \$118,302.80 and an estimated staff savings of 19,717.13 hours for redirection of efforts to more critical aspects of the business. Online survey results continue to indicate a very favorable acceptance of the processing. Data received from the survey continues to assist in fine-tuning the process for customer ease of reporting.

### ***Unemployment Insurance Continued Claims***

The Department of Labor and Industrial Relations continues the E-Government process for accepting Unemployment Insurance Continued Claims via the Internet. This process provides an alternative filing method for our customers requiring continued, weekly, claims filing. Since its' introduction, the Continued Claims process has accounted for 789,598 weeks of compensation being claimed. This equates to a 1-800 toll charge savings of approximately 2,368,794 minutes resulting in an overall savings of \$165,815.58 for the Department.

### ***Electronic Mass Claims***

The Department of Labor and Industrial Relations continues the E-Government process for accepting Mass Unemployment Insurance Claims via the Internet. These claims are sponsored by the employer and submitted electronically for direct processing into the system. This process has accepted 17,192 initial claims and 15,088 renewed claims since its introduction. Statistics from this media have been incorporated into Unemployment Insurance Initial Claims information.

### ***Internet Address Change***

In September of 2002 the Department of Labor and Industrial Relations started the E-Government process to allow the Unemployment Insurance claimants to update their address via the Internet. Current claimants can update this when their addresses have changed to insure checks and other correspondence are mailed to the correct location. This provides more timely mailings along with less returned mail. January 2003 thru November 2003, accounted for 2,400 successful Internet address changes for Unemployment Insurance claimants.

### ***Internet Contribution and Wage Reporting***

After completing the RFP and evaluating the candidates, DOLIR/DES selected a vendor to work on this project with DOLIR. In July of 2003 the vendor (CIBER) started work on the Internet Contribution and Wage Reporting system now referred to as USTAR. This system will allow employers to file quarterly wage reports and make electronic payment of their Unemployment Insurance taxes. It will automatically update the existing mainframe systems reducing data entry effort and speeds up deposits of funds. The 1<sup>st</sup> pilot involving about 500 employers is planned to begin the 1<sup>st</sup> quarter of 2004. The 2<sup>nd</sup> pilot involving about 2000 employers is planned to begin the 2nd quarter of 2004. With full production planned for the 3<sup>rd</sup> quarter of 2004.

### ***Electronic 1099 Information Request***

In December of 2002 the Department of Labor and Industrial Relations initiated, the E-Government process to allow the request and print of 1099 Information for

Unemployment Insurance via the Internet. Current and former Claimants can request Unemployment Insurance 1099 information by the Internet from up to 10 previous years. January 2003 thru November 2003, accounted for 4,026 successful 1099 requests from Unemployment Insurance claimants. This operation saves labor and mailing costs.

### ***Linking Unemployment Insurance Claimants to Missouri-WORKS!***

In December of 2002 the Department of Labor and Industrial Relations, in cooperation with the Department of Economic Development, initiated the E-Government process to link Unemployment Insurance Claimants to Missouri WORKS! via the Internet. Once an Unemployment Insurance claim has been completed this process electronically passes claimant information to Missouri WORKS! The claimant is then routed to Missouri WORKS! where they can complete a resume without reentering personal information. This process provides an easier and faster method for claimants to register with Workforce Development and helps guide them through finding a new job. January 2003 thru November 2003, linking Unemployment Insurance Claimants to Missouri WORKS! accounted for approximately 50,000 claimants with their related information being routed to Missouri WORKS!

### ***Scanning Subsystem Implementation***

We are currently completing the implementation of a new scanning subsystem for the Department imaging system. The new system replaces the Scan Optics system and will save the department over \$50,000 annually in maintenance expenses. The system is managing the front end processing for the high volume documents processed daily by DOLIR. Since October 28, over 16,000 forms have been processed by the new system, including an average of 500 Benefits Claims daily. The system uses Optical Character Recognition (OCR) technology to electronically read and store data used for processing unemployment benefits without the need for manual entry. The Kofax Ascent Capture software provides Document-Data-Internet architecture, which allows for document, data and Internet-based capture, providing compatibility with all future imaging system upgrades and a stable platform for the conversion and automation of all department documents.

### ***EDI First Report of Injury***

Completed the reprogramming for the EDI First Report of Injury to bring it into compliance with the IAIABC Release 1 standards and to support the Division of Workers' Compensation requirement for the planned mandate of electronic reporting in CY2004. Also completed the implementation of new front end programming to allow multiple file processing, improve file management and improve response time for customer acknowledgments in support of the planned EDI mandate. In CY03 to date, supported processing of 112,049 injuries electronically through EDI, of which 89,089 were accepted by the system, providing savings of approximately 4 data entry staff positions, allowing redirection to other avenues of the operation.

### ***Enhanced Information Security***

The Department of Labor and Industrial Relations has continued to enhance information security throughout the Department including, but not limited to:

- ❑ Instituted Departmental Logon Warning Screen.
- ❑ Implemented automated screen saver lock after fifteen minutes inactivity.
- ❑ Performed quarterly user account verification audits.
- ❑ Performed unauthorized file access attempt audits.
- ❑ Conducted Information Security briefings for New Employee Orientations.
- ❑ Performed periodic audits of entries to secured OIS areas.
- ❑ Conducted NIST Self-Assessment of Computing Environment.
- ❑ Established System Security Authorization & Certification and Authorization to Operate.
- ❑ Established Continuity of Government documentation.
- ❑ Established CyberSecurity “Assault” Reports.
- ❑ Established Functional Program Security Certifications.
- ❑ Established Information Security Incident Reporting procedures and automated reporting tool.
- ❑ Established Memorandum of Understanding between Office of Information Systems and Missouri Army National Guard for Information Security Training and Audit capabilities.
- ❑ Established Occupant Emergency Plans.

### ***Help Desk***

The Department of Labor and Industrial Relations established a consolidated Help Desk, in January 2000 to provide support for our internal customers. During the calendar year 2003, the Help Desk has had 13,682 problems reported with 13,561 of those reported being successfully resolved with less than 1% pending resolution. The 2003, metric represent a 21% increase over calendar year 2002 and a 90% improvement compared against the base year 2000. The 2003 improvement was notwithstanding a 20% decrease in Help Desk staffing. During calendar year 2002, the Help Desk has had 11,290 reported problems with 11,187 of those reported being successfully resolved. The 2002 metric indicate an increase of reported problems at 15% with only 1% pending resolution. During calendar year 2001, the Help Desk has had 9,820 reported problems with 9,677 of those reported being successfully resolved. The 2001 metric indicate an increase of reported problems at 36% with only 1.5% pending resolution. During calendar year 2000, the base year, the Help Desk had 7203 problems reported with 7069 of those reported being successfully resolved during the reporting period.

### ***IT Capital Upgrade***

The Department of Labor and Industrial Relations has replaced 5% (53) of its desktop, laptop and servers in 2003. This allows better utilization of currently available technology. In 2002, 53% (442) desktop computers where replaced.

### ***Data Entry Processing***

The Data Entry section of Information Systems has processed 234,861 Wage Reports in 2003. Also processed were a substantial number of Employment Security Wage Adjustments, Pre-audits, Certifications, Field Audits, Alteration Memo's, Un-collectible, Combined Wage Claims, TRA (Claims and Benefits), Contribution Check

Reconciliation, Machine Audit Reports, Vendor Error Correction, and quarterly Financial Management Equipment Invoices.

### ***Help Desk Survey***

The Department of Labor and Industrial Relations continues to initiate a comprehensive Help Desk user survey to ensure that quality control and customer service remains efficient. This survey is electronically submitted via the e-mail system. Improvement of service delivery and customer satisfaction remains at a constant ratio of 4, which equates to a 92% overall acceptance rating and a 2% approval increase, over 2002.

### ***Magic Help Desk Software***

The Department of Labor and Industrial Relations has initiated the customization of the Magic Help Desk Software in the area of customer verification. This security upgrade assists Help Desk Analysts in verifying the identity of customers calling in for help.

### ***PC Applications***

The Department of Labor and Industrial Relations constantly looks for ways to enhance current systems, develop new systems, and integrate new development with legacy systems for increased functionality. Some of our accomplishments in this area are:

- ❑ Designed and implemented the 1<sup>st</sup> phase of a Disaster Unemployment Insurance (DUA) intake and editing system using MS-Access. This phase allows Central Office staff to input DUA information ensuring cases are entered correctly. Within this application the collected data is then transferred to the existing mainframe for final processing and record storage. The next phase will be a subset that allows the RCC staff to perform most of the initial entry prior to transferring to the Central Office where the final entry and verification is conducted.
- ❑ Developed the 2003 National Unemployment Insurance Tax Conference registration Database. All registrations are maintained in an Access Database system. The registration coordinator then can add/change/delete registrations as well as run reports and mailing lists. It also accommodates invoicing and direct billing processes.
- ❑ Designed and implemented the 1<sup>st</sup> phase of a Maintenance Work Order (MWO) intake and editing system using MS-Access. This phase allows Central Office maintenance staff to input maintenance work orders making sure they are entered correctly. The maintenance section can track all of the work requests and do reports on how many they have, how long each took and how much they cost. The next phase will be an Intranet front-end allowing DOLIR staff in the various offices to submit maintenance requests and an Intranet inquiry so they can see the status of these requests across the state.
- ❑ In the 2<sup>nd</sup> quarter of 2003 the MS-Access based Field Auditors Case Tracking System -2002 (FACTS-2002) went into full production replacing the old Paradox

based FACTS-3. During the last 3 quarters of 2003 FACTS-2002 was used by some 85 DES UI-Tax Field Auditors to perform over 2,600 compliance audits. It is also used for preparation of delinquent quarterly reports.

### ***WEB Page Development***

The Department of Labor and Industrial Relations continues to enhance our Internet home pages providing more and better information that increases usability for our customers. Some of our accomplishments in this area include:

- ❑ Completed the full reorganization and reface all the Divisions web pages on the DOLIR Internet site.
- ❑ Designed and implemented the 2003 National Unemployment Insurance Tax Conference web site.
- ❑ Established Governor Council on Disability Directory Resources in Access, which allows Divisional staff to maintain and update information online. The public can now view this directory with several different options generated dynamically on the Internet.
- ❑ Designed and implemented a dynamic alert notice and an FAQ for excessive Unemployment for the Division of Labor Standards.
- ❑ Missouri Assistive Technology Program staff now maintains lists of organizations that have assistive equipment for sale or trade in an Access database. The public can now view this directory by regional views generated dynamically on the Internet.

### ***AS/400 Systems / Operations***

The Department of Labor and Industrial Relations continues to make modifications to its AS/400 computing environment. Some of the modifications and enhancements of the past year include:

- ❑ Upgraded operating system for Workers' Compensation partition from V4R5 to V5R1.
- ❑ Upgraded Content Manager, Image Plus with Visual Info to be compatible with V5R1 operating system.
- ❑ Working with ISC Document Systems installed Kofax Ascent Capture scanning subsystem and configured high speed Kodak scanner for use with subsystem.
- ❑ Installed new high-speed scanner for Workers' Compensation.
- ❑ Migrating IWPM software on Test Partition to V5R1 and integrated Visual Info.
- ❑ Initiated printing of Workers' Compensation correspondence on InfoPrint 3000.
- ❑ Implemented IBM solution for using mixed case passwords on NT, 2000 and XP personal computers.
- ❑ Moved AS/400 users to Integrated File System.
- ❑ Initiated printing of Images to high-speed laser printer.
- ❑ Converted Office Vision documents to Microsoft Word format.
- ❑ Helped implement auto importing of mainframe files to Employment Security Image System.

- ❑ Helped Database group get DB/2 files properly defined on Employment Security partition for USTAR project.
- ❑ Upgraded operating system and Image software for Employment Security partition.
- ❑ Configuring Employment Security Image system Visual Info program and client.
- ❑ Continue to pursue solution for optical replacement.
- ❑ Installed and upgraded Optical Library received from Missouri State Highway Patrol, which was moved into production after Workers' Compensation optical library failure.

### ***Mainframe Systems/Operations***

The Department of Labor and Industrial Relations continues to make modifications to its mainframe computing environment. Some of the modifications and enhancements of the past year include:

- ❑ Migrated mainframe from OS20 to OS15.
- ❑ Upgrade IAM file compression software on mainframe.
- ❑ Moved users from ROSCOE to TSO.
- ❑ Installed new IBM 6400 IBM printer and changed programming so applications could use new printer.
- ❑ Converted systems programs from Assembler to COBOL.
- ❑ Modified programs for Social Services web inquiry.
- ❑ Changed the CICS FIX and Production Compile skeletons to use the Integrated Translator in COBOL OS/390 and VM. The Integrated Translator is supported in the new CICS Transaction Server 2.2.
- ❑ Set up new channels and queues in MQ for USTAR project.
- ❑ Wrote new REXX program, panel and skeleton for FTP from AS/400 to mainframe.
- ❑ Upgraded test queue manager (QM0T) to Websphere MQ for z/OS version 5 release 3.
- ❑ Upgraded production MQSeries (QM0P).
- ❑ Created ISPF panels and REXX programs for FTP from Kofax server to mainframe.
- ❑ Tested Arkansas UI checks on our printers.
- ❑ Participated in Disaster Recovery exercises with the State Data Center.
- ❑ Continue to support and move reports to MOBUIS.
- ❑ Working on the email conversion to dolir.mo.gov addresses.

### ***Telecommunications***

The Department of Labor and Industrial Relations has continued to implement numerous initiatives and undertake projects to include, but not limited to:

- ❑ Kansas City Downtown: Wired basement for staff from 2<sup>nd</sup> floor to temporarily use until renovation was complete. Rewired 2<sup>nd</sup> floor for staff in basement and outside moves.



- ❑ St. Peters: Worked with Network Operations to move Contribution Field to new facility and worked with union contractors for inside wiring.
- ❑ Worked with Network Operations to wire and install CC Announcer in St. Louis and Kansas City.
- ❑ Camdenton: Contribution Field telephone service switch to state network service.
- ❑ Sikeston: Human Rights telephone upgrade and consolidation.
- ❑ Telephone line and billing clean up in cities throughout the state, many unused and unnecessary lines were disconnected. Telephone database was also created with thorough documentation of all services.
- ❑ Rewired some areas of Print Shop in Dunklin St. Building as part of renovation in that area.
- ❑ Assisted with major Jefferson City Call Center moves.
- ❑ Appeals Statewide: Set up Bridge Knight Group so that telephone number of appeals referees holding telephone hearings won't display the correct number on caller id boxes. This feature was implemented to protect the referees from threats or call backs after hearings.
- ❑ Sikeston: Wired and worked with Network Operations to move Human Rights and Contribution Field into new facility.
- ❑ Jefferson City: Installed UCD group for entire Employment Security Employer Contribution Collection Unit.
- ❑ Jefferson City: Installed UCD group for Appeals Secretaries and stenographers.
- ❑ Wired all conference rooms to have telephone and data connections.
- ❑ Assisted Network Operations with several miscellaneous new wiring installs and changes statewide.
- ❑ Numerous miscellaneous telephone adds, moves and changes were made statewide.

### ***Network Operations***

The Department of Labor and Industrial Relations has continued to implement numerous initiatives and undertake projects to include, but not limited to:

- ❑ Assisted in the program installations as Issues and 1660 programs moved to the new IVRs.
- ❑ Purchase and installation planning of a CC Announcer system in Kansas City Call Center.
- ❑ Implemented new 800 number routing for call center service areas.
- ❑ Installation of Cisco VPN hardware to replace the Microsoft VPN software solution.
- ❑ Moved Fraud and Crime Victims to Ethernet.
- ❑ Installation of new Intranet and Internet servers.
- ❑ Installation and configuration of hardware and software for USTAR Program.
- ❑ Moved all Remote Call Centers to Ethernet.
- ❑ Moved Human Rights, Labor Standards and LIRC in DOLIR Building to Ethernet.
- ❑ Continued the Ethernet migration in Employment Security Building, 14 Token Ring devices are left in the building as of November 2003.

- ❑ Continued the Ethernet migration in the DOLIR Building, 3 Token Ring devices are left in the building as of November 2003.
- ❑ Removed four 3174 remote controllers.
- ❑ Installed new PIX 525 Firewall.
- ❑ Installed new Border Router.
- ❑ Shutdown last of the PCOMM servers.
- ❑ Upgraded St. Charles Workers' Compensation data circuit from 128 to 256.
- ❑ Network Conversion to new MOVN contract on all Frame Relay circuits. This change was necessary due to implementation of new statewide contract and has resulted in a savings of \$3,148.38 per month in line charges.

### ***Computing Center Operations***

The Department of Labor and Industrial Relations has continued to implement numerous initiatives and undertake projects to include, but not limited to:

- ❑ The Operations staff implemented the transfer of image printing for Workers' Compensation and Appeals.
- ❑ The start and restart options for TRA, CRF and DUA checks were upgraded.
- ❑ Operations staff took over the processing of the General Ledger daily report for Workers' Compensation.
- ❑ Completed a procedures manual for the 6:00 AM operator.
- ❑ Produced in excess of 2.5 million UI, TRA, DUA and CRF checks.

### ***Mainframe Applications***

The Department of Labor and Industrial Relations maintains vast amounts of systems and associated programs. Constant modifications, enhancements, and process changes have been normal operating procedures. Specific actions, with regard to Mainframe Applications are:

- ❑ Convert Employer Collections to assign accounts by the last 3 digits of the account number rather than by Field District.
- ❑ Implemented programming to twice extend Temporary Emergency Unemployment Compensation.
- ❑ Implemented programming to permit Temporary Emergency Unemployment Compensation for Airlines (TEUC-A).
- ❑ Implemented programming to allow for Direct Deposit of TRA benefits.
- ❑ Implemented programming to directly image several Benefit documents.
- ❑ Placed several daily/monthly/quarterly print jobs on Mobius to reduce paper usage.
- ❑ Converted printing to new INFOPRINT 6400 printer.
- ❑ Implemented programming for Wage Record Interchange System.
- ❑ Began process of implementing programming to allow customers to correct data errors without requiring an ISSR.
- ❑ Implemented programming for activation of Unemployment Insurance DUA Disaster 25.

- ❑ Implemented programming for activation of Unemployment Insurance UCX procedures, phase II.
- ❑ Implemented MOBIUS to reduce printed output volume (Administration Area added 15 new reports in the last year).
- ❑ Converted financial reports, sent to the USDOL, to an ASCII format and transfer to a CD to reduce paper reports & shipping costs.
- ❑ Enhanced the DOLIR CICS Training Tracking system so it now gathers training information regarding the management-training rule. This allows managers to see what training there folks have had and when, what is needed and by when it should be completed.
- ❑ Certified mail label tracking system. This saves postage and labor costs.

### ***Project Review Office***

The Department of Labor and Industrial Relations maintains, and develops, numerous operational standards and procedures to provide structured Project Management. This office also coordinates the DB2 Database. Specific accomplishments are:

- ❑ Upgraded DB2 Version 6 to Version 7.1.
- ❑ Upgraded Cool-Gen 5.1 to 6.0.
- ❑ Updated Information Technology Program Development Standards.
- ❑ Initiated documentation templates for the following:
  1. System Descriptions
  2. Flowchart Descriptions
  3. Job Descriptions
  4. Program Descriptions
  5. Report Descriptions
  6. Windows/ Screen Descriptions
  7. File Descriptions
- ❑ Updated Building Reception Operations Manual.
- ❑ Created a Project Estimate and Proposal for Video Conferencing.
- ❑ Documented the Production Comments System (Employer Relations File - ERF System).
- ❑ Created a Project Management Methodology Manual and Desk Reference.
- ❑ Created a Project Control Book.
- ❑ Evaluated other states Unemployment Insurance Tax Systems.
- ❑ Working with contractors to complete an Internet system, which will enable employers to file their Contribution Wage Reports on-line.

### ***AS/400 Applications***

The Department of Labor and Industrial Relations maintains, and develops, numerous systems on the AS/400. Specific accomplishments are:

- ❑ Began programming to accept via EDI, First Report of Injury Changes, Corrections, Cancellations, Denials and Acquired Claims.
- ❑ Implemented programming to distribute DWC Information Request letters electronically. Over 2,500 letters have been sent to OA – CARO to date. Our

next pilot customer is Missouri Employers Mutual, which will eliminate printing over 15,000 letters annually.

- ❑ Expanded Electronic Data Distribution (EDD) system to distribute correspondence electronically to DWC customers. Over 26,000 letters have been sent electronically, saving \$3,000 in postage along with printing and mailing supplies and manual handling.
- ❑ Completed revisions for Workers' Compensation Self Insurance Trust and Trust Member modules.
- ❑ Implementing NAICS industry codes and SIC / NAICS conversion for statistical and reporting purposes.
- ❑ Installed new program for end users to mass update Insurer Service company records. To date, over 34,000 injury cases have been automatically updated with the tool, saving approximately 35 days of end user time for utilization in other business areas.
- ❑ Initiated automated importing and automated indexing into DOLIR imaging system for 19 Benefits document types, consisting of about 4,500 documents per day.
- ❑ Converted 17 additional Benefits documents to be automatically indexed into the imaging system saving 4-5 hours per day for Benefits staff, allowing redirection of staff time to other avenues of the operation.
- ❑ Installed new program for Appeals to provide the automatic printing of 500-1000 image documents daily, saving Appeals staff time and speeding up their ability to review cases.
- ❑ Completed statistical reporting for the Workers' Compensation Research Institute study of the Missouri Division of Workers' Compensation.
- ❑ Modified Workers' Compensation correspondence module to store all previous correspondence history.
- ❑ Implementing Medical Fee Dispute docketing system and automated notices, which will save the creation of 2,000 manual letters annually.
- ❑ Installed programs for Division of Labor Standards to track monthly and annual youth workplace injuries.

### ***Planned Projects:***

- ❑ Internet UCX, UCFE and CWC
- ❑ Internet UI-Claims status Inquiry
- ❑ Allow backdating & changing of recall date for Internet UI Claims
- ❑ Internet Contributions and Wage Reporting (work in progress see above)
- ❑ Upgrade Internet UI Mass Claims process to be hands-off capable
- ❑ Labor Standards Annual Wage Order and all incremental changes available on the Internet to eliminate Mailing of CD's throughout the year. (work in progress)
- ❑ Enter Child Work Certifications at the schools by the Internet for more timely, and accurate reporting.
- ❑ AICS Web Implementation

- ❑ Automated ISSR system to allow users to enter there is requests and check the status of there is requests via Intranet. (work in progress)
- ❑ Redo DOLIR phone book on the Intranet for easier/faster updating, multiple searches, and a browser based printer friendly format. (work in progress)
- ❑ Continue to expand use of MOBIUS as an alternative/replacement for printed output.
- ❑ UI Validation (Both Benefits and Tax)
- ❑ Allow the use of the B-096 and B-207 for all claims
- ❑ Internet Contributions and Wage Reporting
- ❑ Develop a system for transmitting data to Housing and Urban Development (HUD)
- ❑ Upgrade Internet UI Mass Claims process to be hands-off capable
- ❑ Complete conversion of IVR to eliminate the Centigram IVR
- ❑ Complete phase II of UCFE modifications
- ❑ Develop a system for responding to employer protests to combined wage claims and benefit charge notices
- ❑ Take telephone numbers and witness names for Appeal Hearings
- ❑ Continue Online file error correction for customers
- ❑ Create a new billing statement
- ❑ Automatic Assessments
- ❑ Implement programming to allow Contribution adjustment information to be entered in the user sections
- ❑ Implement programming for the new IB6 system with Lockheed Martin
- ❑ Implement programming for Phase II of the 2002 Trade Act extension
- ❑ Correspondence Control System
- ❑ Benefits Employer Protest system Image module
- ❑ Self-Insurance Individual Employers
- ❑ Comm-Bridge replacement with Direct Connect
- ❑ Intranet Co-Registration joint venture with Department of Revenue
- ❑ Web enable First Report of Injury
- ❑ Upgrade Remote Adjudication Module (RAM)
- ❑ Expand EDI to include:
- ❑ First Report of Injury Change, Correction, Denial record types
- ❑ Subsequent Report of Injury
- ❑ FTP EDI submissions
- ❑ Continue phasing out 3174 controllers
- ❑ Upgrade email server hardware and software to Exchange 2000
- ❑ Replace Cisco 5500 core switch at 421 East Dunklin
- ❑ Continue migration to Ethernet topology
- ❑ Continue replacement of older servers
- ❑ Implementation of new Imaging projects for Scanning Subsystem
- ❑ Imaging project to move from green screen environment to browser based clients
- ❑ Continue to expand use of MOBIUS as an alternative/replacement for printed output
- ❑ Evaluate phasing out ESCON channel driven devices
- ❑ Provide Semi-Annual review of Policies and Procedures to ensure accuracy, effectiveness, compliance, and completeness (as per Information Security Principles and Policies, section IX)

- ❑ Provide unscheduled security audits on all Divisions within DOLIR with the DOLIR CIO (time permitting)
- ❑ Develop and collect Information Security metrics concerning (a) Information Security Awareness (i.e. number of employee reminders, Information Security Awareness trainings, etc per year) and (b) Incidence Responses (number of virus alerts, average downtime per virus infections, etc)
- ❑ Implement annual computer-based training (CBT) on Information Security for all DOLIR employees (funding permitting)
- ❑ Perform user account verification audits
- ❑ Perform periodic unauthorized file access attempt audits
- ❑ Provide informational security briefings at all New Employee Orientations
- ❑ Perform periodic audits of entries into secured OIS areas
- ❑ Implement Information Security Condition standards in accordance with State of Missouri standards
- ❑ Initiate Computing Environment Security Review in accordance with standing Memorandum of Agreement with Missouri Army National Guard

## ***Accumulated Demand***

The demand for services is ever increasing. The Department of Labor and Industrial Relations strives to meet all requirements while continuing to provide quality products. Although some requirements may be of greater business importance all processing requirements will be reviewed. At times the demand for service outweighs the ability of Information Systems to provide requested support. Business requirements, process improvements, and electronic procedures that enhance existing systems will be addressed as personnel availability allows.

The Office of Information Systems' current demand for support of applications; whether new development, system enhancement, or maintenance of legacy systems is estimated at approximately 72,525 hours based on our current backlog of request for services'. Based on personnel availability, and assuming no additional request for services' are initiated, the estimated hours equate to a 2.5 year backlog at the Office of Information Systems' current applications development staffing ratio.

The Office of Information Systems' current demand for support of network services and systems support, based on personnel availability, and assuming no additional request for services' are initiated, is estimated at 18 to 24 months backlog at the Office of Information Systems' current staffing ratio.

## ***Department of Labor and Industrial Relations Profile (2003)***

Department Name

*Department of Labor and Industrial Relations*

Street Address

*3315 West Truman Boulevard,  
PO Box 504*

City

*Jefferson City*

Zip

*65102-0504*

Main Phone Number

*(573) 751-9691*

Main Fax Number

*(573) 751-4135*

Website URL

*www.dolir.mo.gov*

Department Director

*Ms. Catherine B. Leapheart*

Number of FTE (entire department)

*1185 Full Time and 124 Part Time*

Approximate number of citizens served

*The Department of Labor and Industrial Relations, along with all divisions within its' operational control, has impact on potentially ALL citizens in the State of Missouri. Additionally, the Department provides informational assistance to federal agencies that potentially impacts citizens across the nation.*

Agency Mission (brief statement)

*Our mission is to strive to provide employees with safe and healthy workplaces and ensure economic security for all Missourians by promoting equal access to jobs, enforcing anti-discrimination laws and awarding payment of compensation to unemployed, injured workers and victims of crime. In addition, the Department strives to provide Missourians with equal employment opportunities while it also strives to prevent and eliminate unlawful discrimination. The Department provides educational information to Missourians regarding their rights and responsibilities under the labor laws.*

<b>Department CIO and IT Division Profile (2003)</b>		
Department Name		
<i>Department of Labor and Industrial Relations</i>		
Department CIO Name		
<i>Mr. Jearl E. Reagan I</i>		
Street Address	City	Zip
<i>421 East Dunklin Street, P.O. Box 59</i>	<i>Jefferson City</i>	<i>65104-0059</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>(573) 751-3284</i>	<i>(573) 751-0167</i>	<a href="mailto:Jearl.Reagan@dolir.mo.gov">Jearl.Reagan@dolir.mo.gov</a>
<b>CIO Membership in Professional Associations – Leadership Role Involvement</b>		
<i>(i.e., NASCIO – serve on architecture standards committee)</i>		
Board of Advisors, Public Sector CXO; Information Technology Advisory Board; State Data Center Evaluation Committee; National Association of State Workforce Agencies; Chairman, Information Technology Portfolio Evaluation Committee; Vice President, Jefferson City Chapter of InfraGard; CyberSecurity Committee of the Homeland Security Council		
IT Division Name		Website URL
<i>Office of Information Systems</i>		<a href="http://www.dolir.mo.gov">www.dolir.mo.gov</a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>71.50</i>	<i>N/A</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>N/A</i>	<i>N/A</i>	
Security Officer Name	Phone No.	E-mail
<i>Mr. Fernando Mendez</i>	<i>(573)751-7073</i>	<a href="mailto:Fernando.Mendez@dolir.mo.gov">Fernando.Mendez@dolir.mo.gov</a>
	Phone No.	E-mail
<i>Ms. Cynthia Quetsch</i>	<i>(573)751-9691</i>	<a href="mailto:Cynthia.Quetsch@dolir.mo.gov">Cynthia.Quetsch@dolir.mo.gov</a>
ITAB Alternate Name	Phone No.	E-mail
<i>Mr. John K. Namassy</i>	<i>(573)751-0121</i>	<a href="mailto:John.Namassy@dolir.mo.gov">John.Namassy@dolir.mo.gov</a>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Mr. Alan D. Spears</i>	<i>(573)526-3586</i>	<a href="mailto:Alan.Spears@dolir.mo.gov">Alan.Spears@dolir.mo.gov</a>



<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Labor and Industrial Relations</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>IBM 390 with MVS at State Data Center</i>
PC Servers	<i>Microsoft Windows NT, Microsoft Windows 2000, Linux</i>
Mid-range	<i>IBM AS/400 Model 830 2402 with OS/400 V4.5</i>
Networked	<i>N/A</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows NT, 2000, XP, OS2</i>
Dumb terminal	<i>N/A</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP and SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAfee, Trend Micro Scan Mail</i>
Desktop	<i>1300 McAfee</i>
Internet	<i>IDS, firewalls</i>
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2, SQL, Access Database</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, CICS, Assembler, SAS, Advantage:Gen, Advantage:2E, Advantage:Plex, RPG, Jwalk, WinJa, VB, Java, Websphere/VAJ, Homesite (HTML/ASP Editor), Websphere Studio</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL, IPsec</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>Library Management System</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1, Frame Relay</i>
GIS (ArcView, MapInfo)
<i>N/A</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Missouri Lottery Commission

#### **Accomplishments**

##### ***Retail Order Confirmation Via Email***

The necessary procedures and methodologies were developed to provide electronic confirmation of ticket orders for Missouri retailers. This provides positive input to business managers by letting them know, in advance, when they are to receive new products and ticket order statuses. Establishing this access has provided a new avenue of information sharing which will help employees and Missouri retailers to better serve their customers and the citizens of Missouri.

##### ***Scratcher Ticket Theft Deterrent/Detection***

The necessary procedures and methodologies were developed to provide electronic and report access to the lottery security staff to aid in helping retailers know if they are having possible thefts at their locations. This process allows the security department to proactively find problem packs for retailers before a retailer knows that they may have thefts. So far there has been close to a hundred instances of stolen packs proactively detected, which has led to several arrests, and the recovery of monies for retailers.

##### ***Geo-Coding of Lottery Retailers***

Using Global Position System (GPS) technology, and with assistance from the University of Missouri, Columbia, the exact locations of businesses selling lottery products has been established. This information is invaluable as a tool for improving service to retailers, optimizing available resources, conducting promotions, routing and other marketing initiatives.

##### ***WEB Player's Club***

Developed a player account system for the lottery home page. The system is designed to provide a database of players and their preference for playing Missouri Lottery games. Players can create and manage their accounts via the WEB at [www.molottery.com](http://www.molottery.com). Once a player is registered he or she can elect to receive daily newsletters, jackpot alerts, participate in player surveys and register for a lottery Captains' Club. Players can also submit and manage their entries for various second chance promotions. The account

system also serves as basis for a website portal system in which content is dynamically served to the player based on information in their account.

### ***'Xtra' Gaming Option for Missouri Online Games***

Daily online games were given a new look in calendar year 2003 with the addition of the 'Xtra' option. This option allows the player to play for an instant prize payout simply by adding \$1 or \$.50 plays to their original daily game ticket. This has added a new dimension for each of the daily instant games, without the overhead of introducing a completely new game.

### ***Email and Daily Call Summary Deployment to Field Reps***

Lottery field service representatives (LSRs) cover the entire state retailer network providing many valuable services to business owners, employees and players. To support these efforts in the past, field staff relied on faxed documents, numerous hardcopy reports and frequent phone calls to office support staff. In many instances LSRs had to travel to the office to get this information. When Keno was added, there was a significant increase in account load for staff. To facilitate the necessary continued support, the field staff was provided with tablet computers. These computers provide a much wider range of information, reports, special forms, electronic mail services and a means by which the field staff may funnel information back to the office in a timelier manner. Very early in the implementation phase, field reps received very positive feedback from our retail customers. In addition, LSRs have gained valuable time in the field.

## **Planned Projects**

### ***CY04 WEB Initiatives***

The Lottery is committed to providing extraordinary customer service to its players, retailers and other stakeholders. The Lottery is also interested in providing information, education and entertainment to citizens through the Internet. The Internet provides a channel which, when properly configured, allows state-of-the-art technologies to give all parties what they want, when they want it. This is a robust environment that allows the Lottery to disseminate as well as collect information. There are many applications and small projects affiliated with this initiative, including E-Business and E-Commerce usage that will streamline business and provide quality service to our customers. WEB projects anticipated include:

- ❑ *Retailer Access:* Provide retailers secure access to all of their accounting, sales, prize payment information, retailer application and licensing requests through the WEB.
- ❑ *WEB Market Research Initiatives:* Utilize the WEB to provide cost effective and faster research information that will allow the Lottery to improve product offerings, promotions and services.
- ❑ *Dedicated WEB Server:* The WEB server hosted by MORENET for state agencies is becoming a problem for WEB services deployment and response time. A dedicated

server environment will be evaluated to determine the best server-hosting environment for the Lottery's players, retailers and employees.

### ***Ongoing Marketing Efforts***

Based on past experience with the diverse environment of the Lottery industry, it is both anticipated and expected that a number of system requirements both large and small will be required in the coming year. These systems can and may be as simple as changing existing game matrixes to adding complete new products to the mix of Lottery offerings. These changes are inherently diverse and unpredictable as the Lottery industry is ever changing and reactionary to trends, legislation and marketplace. As in the past year, a number of marketing initiatives will involve the world-wide-web and will include use of surveys, second-chance draws and other promotions.

### ***Winner Awareness Initiative***

Lottery communications and marketing personnel frequently are asked for information regarding specific prize winners, regionalized winning tallies and many other pieces of information regarding lottery winnings. These requests come from the media, retailers, players, government officials, etc. and require varied amounts of effort to compile. This initiative will be addressed in CY04. The end result will be more effective and timely reporting.

## **Accumulated Demand**

The Lottery has a small IT staff and must rely on the ability of staff to be diverse and flexible in the technology disciplines used within the organization. The limited staff size can translate into lower productivity periods when there is turnover and the need arises to train new staff. There is currently a backlog of approximately 1 man-year of service requests and projects. This backlog has been significantly reduced from last years reported 2.75 man-years primarily because the organization experienced no turnover in the IT community this past year and one additional WEB developer was added.

### ***General Department Profile (2003)***

Department Name

*Missouri Lottery Commission*

Street Address

*1823 Southridge Dr*

City

*Jefferson City*

Zip

*65109*

Main Phone Number

*(573) 751-4050*

Main Fax Number

*(573) 751-5188*

Website URL

[www.molottery.com](http://www.molottery.com)

Department Director

*Jim Scroggins*

Number of FTE (entire department)

*176.5*

Approximate number of citizens served

*5.6 million*

Agency Mission (brief statement)

*To maximize revenues for public education through the creation and sale of fun and entertaining products consistent with the highest levels of service, integrity and public accountability.*

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri Lottery Commission</i>		
Department CIO Name		
<i>Mike Wankum</i>		
Street Address	City	Zip
<i>1823 Southridge Dr</i>	<i>Jefferson City</i>	<i>65109</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>(573) 526-7492</i>	<i>(573) 751-5188</i>	<a href="mailto:wankum@molottery.com">wankum@molottery.com</a>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>NASPL Technology Committee</i>		
IT Division Name		Website URL
<i>Administration – Data Processing</i>		<a href="http://www.molottery.com">www.molottery.com</a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>19</i>	<i>0</i>	
Total \$\$ value of FY04 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY04 IT requests funded	
<i>\$0</i>	<i>\$0</i>	
Security Officer Name	Phone No.	E-mail
<i>Wanda Hawkins</i>	<i>751-4050</i>	<a href="mailto:hawkiw@molottery.com">hawkiw@molottery.com</a>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	E-mail
<i>Ron Murphy</i>	<i>751-4050</i>	<a href="mailto:murphr@molottery.com">murphr@molottery.com</a>
SDC Steering Committee Rep Name	Phone No.	E-mail

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Lottery Commission</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>Stratus Continuum 1225 with VOS</i>
PC Servers	<i>Compaq Proliant with Novell and NT</i>
Mid-range	
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 2000, XP</i>
Dumb terminal	<i>VOS</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, X25, IPX</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Symantec Anti-Virus</i>
Desktop	<i>Symantec Anti-Virus</i>
Internet	<i>Symantec Anti-Virus</i>
Help Desk Packages (Magic, GWI)	
<i>N/A</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle, SQL</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, FMS, SGI/DBQ, Oracle Forms &amp; Reports, Forte, Dreamweaver, TOAD, ANT, Java, JSP, Tomcat, SAS (PC)</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Novell Groupwise</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>N/A</i>	



Version Control Packages (Source Safe, Panvalet, InterSource, etc.)
<i>CVS</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1</i>
GIS (ArcView, MapInfo)
<i>ArcView, MapInfo</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Mental Health

#### **Accomplishments**

##### ***CIMOR***

The Department (DMH) has contracted with Rose International to complete the development, configuration, and deployment of a core internet-based application that handles consumer information, services, payment processing, and compliance with required HIPAA transactions. This system was initially contracted to iServ Systems, but that company failed to meet contract obligations and was replaced by Rose International in early 2003. The project is 3-6 months behind the original Rose schedule, but DMH has implemented an interim solution to handle required HIPAA transactions until such time that CIMOR is available. Full system implementation is expected to occur in Fiscal Year 2005.

The Department and Rose International have completed work on requirements definition and system design. Significant work has also been completed for data modeling, technical planning and deployment, and all other activities associated with a large-scale software development and implementation project.

During this time, DMH has implemented a statewide pharmacy system to replace various systems that were used at 7 different facilities. This system (QuadraMed) has been installed at 4 of the 7 locations. The remaining St. Louis sites will be installed in early 2004.

In addition, DMH has worked with a vendor to implement FundWare at all DMH facilities. This software will handle the various consumer banking applications currently in use throughout DMH. A pilot phase has been underway at Fulton State Hospital, and is expected to go live in early 2004. Following the pilot phase, statewide training and implementation will take place.

##### ***DMH Security Officer***

Since March 2003, there have been five Department Operating Regulations (DOR's) promulgated to bring the DMH into compliance with the Federal HIPAA Security

Regulation. These regulations encompass the reception and hosting of visitors in DMH facilities, termination procedures, access to electronic data, overall data security, and using email with client's medical information. It is anticipated that there will be several more DOR's and Department wide training as the DMH works to achieve complete compliance by the mandated date of April 2005.

### ***Wide Area Network Modernization***

Statewide network capacity has been improved through standardization and management. Many wide area network connections have been upgraded. Initial implementations of "Quality of Service" were successful in implementing video-conferencing between various DMH sites in order to reduce travel expenses and support remote clinical activities.

### ***Local Area Network Modernization***

DMH has upgraded local networks at 27 statewide facilities, as well as central office, to a switched Ethernet-based LAN infrastructure based on Category 5 wiring. All projects will be completed effective January 2004, with the occupation of the new Western Missouri Mental Health Center.

### ***Windows 2000 Implementation***

All DMH desktops, statewide, have been converted to the DMH (Windows 2000) domain. With the exception of one facility, all DMH servers, statewide, have been converted to the centralized Windows 2000 domain. Standardization and lower total cost of ownership are but two advantages provided by having all users, workstations, and servers on one domain.

### ***Desktop Management***

DMH has converted all "standard" existing desktops and laptops as well as new desktop and laptop purchases to Microsoft Windows XP Professional Operating System and Office XP Professional. Our goal was to lower total cost of ownership based on a standardized desktop that could be managed more efficiently. We are currently using automation software to make these processes more efficient and are beginning deployment of a system that provides asset management, remote control and software metering.

### ***DMH Server Computing Center***

The DMH Server Computing Center nears completion, with new electrical and air conditioning services going online by Christmas 2003. The DMH Server Team continues to evaluate opportunities for reducing the number of physical servers and independent storage units using Server and Storage Virtualization technology. Server virtualization allows one physical server to function as many independent logical servers. Storage virtualization offers greater storage efficiency and configuration flexibility through the logical mapping of physical storage resources. The combination will significantly improve server and storage utilization and increase overall operating flexibility – while reducing long-term maintenance cost, power consumption and environmental needs. The

goal is to reduce the DMH Intel-based Server inventory by 22% by FY05 while improving system availability.

### ***Data Warehouse Migration***

The migration of DMH reporting data from an Oracle Database on AIX to SQL Server on Windows is complete. We have greatly increased the amount of data available, the number of standard reports published, the number of persons who have access to the data, and the performance of our data warehouse.

### ***Pharmacy System Implementation***

The Department has contracted with QuadraMed for a pharmacy system to serve most of our hospitals. We are in the process of implementing that system at several sites. Expected outcomes will be consistency of pharmacy operations and better department-wide reporting capabilities.

## **Planned Projects**

- ❑ Complete implementation of CIMOR Phase 1 statewide, including use by DMH contract providers. Implementation of a common dietary system at all residential facilities.
- ❑ A contract has been awarded an implementation will follow. This is part of the extended CIMOR project.
- ❑ Complete the implementation of a common pharmacy system (QuadraMed), at St. Louis sites. This is part of the extended CIMOR project.
- ❑ Complete statewide implementation of FundWare to replace all client-banking applications at DMH facilities and Central Office.
- ❑ Deactivation of all legacy/mainframe systems when CIMOR Phase 1 implementation is complete (approximately July 2004).
- ❑ Update DMH-wide network, server, and workstation security structures.
- ❑ Improve remote worker connection options using VPN and broadband technologies.
- ❑ Update and expand DMH wireless capabilities.
- ❑ Integration of the Outcomes Reporting system into CIMOR.
- ❑ Integration of the SATOP system into CIMOR.

## **Accumulated Demand**

Several IT project requests are waiting for resources. These include:

- ❑ Improved document management.
- ❑ A full evaluation of Voice Over IP for several DMH phone systems.
- ❑ Improved Internet management.
- ❑ Extension of CIMOR to provide a full range of clinical assessments and other clinical functionality.

### ***General Department Profile (2003)***

Department Name

*Missouri Department of Mental Health*

Street Address

City

Zip

*1706 E Elm St*

*Jefferson City*

*65101*

Main Phone Number

Main Fax Number

Website URL

*573-751-4122*

*573-751-8224*

*[www.dmh.mo.gov](http://www.dmh.mo.gov)*

Department Director

*Dorn Schuffman*

Number of FTE (entire department)

Approximate number of citizens served

*10,000*

*140,000*

Agency Mission (brief statement)

*Working side by side with individuals, families, agencies, and diverse communities, the Department of Mental health establishes philosophy, policies, standards and quality outcomes for prevention, education, habilitation, rehabilitation, and treatment for Missourians challenged by mental illness, substance abuse/addiction, and developmental disabilities.*

<b><i>Department CIO and IT Division Profile (2003)</i></b>			
Department Name			
<i>Missouri Department of Mental Health</i>			
Department CIO Name			
<i>Gary Lyndaker</i>			
Street Address		City	Zip
<i>1706 E Elm St</i>		<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address	
<i>573-751-9121</i>	<i>573-526-6033</i>	<i>gary.lyndaker@dmh.mo.gov</i>	
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>			
<i>Project Management Institute (PMI)</i>			
IT Division Name		Website URL	
<i>Office of Information Systems</i>		<i>http://www.dmh.mo.gov/offices/ois</i>	
Number IT FTE (located in central office)		Number IT FTE (located in field)	
<i>73</i>		<i>75</i>	
Total \$\$ value of FY04 IT requests submitted to OA Budget and Planning		Total \$\$ value of FY04 IT requests funded	
<i>\$11,290,172</i>		<i>\$10,647,899</i>	
Security Officer Name		Phone No.	E-mail
<i>Ed Meyers</i>		<i>573-751-8095</i>	<i>ed.meyers@dmh.mo.gov</i>
Privacy Officer Name		Phone No.	E-mail
<i>Janet Conboy (Acting)</i>		<i>573-751-8076</i>	<i>janet.conboy@dmh.mo.gov</i>
ITAB Alternate Name		Phone No.	E-mail
<i>Dean Williams</i>		<i>573-526-4098</i>	<i>dean.williams@dmh.mo.gov</i>
SDC Steering Committee Rep Name		Phone No.	E-mail
<i>Michael Marcus</i>		<i>573-526-5668</i>	<i>michael.marcus@dmh.mo.gov</i>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Mental Health</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>purchase computing services from OA</i>
PC Servers	<i>IBM xSeries (x440, x360, x350, x342, x335, x330, x240), 8500R</i>
Mid-range	<i>IBM AS/400 (500,620,720,S20,170), IBM SP (UNIX AIX)</i>
Network	<i>CISCO 6500, 7200, 3600, 2610, 2612</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows XP, DELL Optiplex GX 150</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>MORENET via MAN connection to OA</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Norton Anti-Virus (server), Antigen (e-mail)</i>
Desktop	<i>Norton Anti-Virus (desktop)</i>
Internet	<i>PIX 520 Firewall, CISCO Secure IDS (Intrusion Detection Sensor),</i>
Help Desk Packages (Magic, GWI)	
<i>Heat</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>SQL Server, Oracle, IMS, DB2, DB2-400</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Visual Studio .NET, Crystal</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL, Triple DES, MD5</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>Source Safe</i>
Telecommunications (T1, Frame Relay, etc.)
<i>DS-3, T1, Frame Relay</i>
GIS (ArcView, MapInfo)
<i>ArcView</i>



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Natural Resources

#### **Overview**

The Department of Natural Resources' (DNR) mission is "to improve the quality of life and economic well being of all Missourians by fostering the prudent use and protection of our air, land, water, cultural, and energy resources." Core business functions that enable mission accomplishment include resource regulation and enforcement, service delivery, resource planning, management and support services.

The department's information technology environment exists to support the core business functions and consists of mainframe and mini computers, wide area networks and a variety of personal computers (PCs). The State Data Center (SDC) maintains the mainframe computer primarily utilized by the department. The SDC managed mainframe hosts one significant DNR software application --- our Water Pollution Control Program's Water Quality Information System (WQIS). The WQIS processes information related to waste discharge, water quality monitoring and assessment, and facility data. Remote connections to other mainframe computers such as the United States Environmental Protection Agency's National Computer Center are also used to process large data sets.

Mini computers and PCs are used to support department Geographic Information System (GIS) activities, and laboratory analysis of water and air samples. Wide area networks service approximately 2,000 department employees by providing the data sharing links for the department's program, regional and district offices. Also, the PCs are an integral part of the network environment and are used for a wide variety of automation activities such as word processing, data analysis, graphics tasks, and to access network and mainframe applications.

The Department of Natural Resources is committed to enhancing service levels by improving access to department staff and information. To help meet this commitment, the department completed an Information Strategic Plan (ISP) in 1995. The department's ISP identified customers, the services they require, and the information needed to provide those services. Implementation of the plan is proceeding and will promote enforcement activities, responsiveness to public inquiries and coordination of departmental

information systems. ISP projects will facilitate making information readily available to department employees, other state and federal agencies, and the Missouri public.

The automation environment implemented and maintained by the DNR facilitates the department's ability to promote an understanding of natural resource issues, advocate public debate and encourage environmental stewardship. It also promotes responsible economic development by providing access to information regarding environmentally safe practices.

## **Accomplishments**

Current initiatives and accomplishments have occurred in three major areas: infrastructure, Internet and software systems. Also, all initiatives and accomplishments are interdependent. The DNR could not implement software systems and Internet capabilities without an appropriate infrastructure, and many software systems must be "web-enabled."

### ***Infrastructure***

Commencing with fiscal year 1996, the Missouri legislature approved several DNR appropriation requests that support ISP-identified projects. Of these, a FY1998 request focuses on the department's automation infrastructure and addresses two primary goals. First, the department's automation environment must be implemented and maintained in such a manner that it is ready to support emerging business needs. Second, the department must manage and control the cost of implementing and maintaining our data processing environment. In addition, the DNR continues to collaborate with the United States Environmental Protection Agency (USEPA) to address electronic reporting of environmental data. These on-going initiatives will facilitate the consolidation of reporting requirements, increase Internet access to data, reduce the reporting cost for industry and improve the integration of environmental data.

FY2003 automation infrastructure initiatives included cabling infrastructure items, network management tools, file servers, and end-user and support staff training. Cabling infrastructure activities remained focused on upgrading the department's local area network environment to 100mbps-ethernet technology. FY2003 was the fourth year of the five-year ethernet project. Sites upgraded included:

- ❑ Two large buildings located on Elm Street in Jefferson City;
- ❑ The department's Environmental Services Program located on West Main in Jefferson City;
- ❑ Several major communications components in the Jefferson City central office.

These tasks have increased data transfer capacity between department entities, enabled the implementation of robust department-wide Internet connectivity, and "set the stage" for implementation of department-wide software systems. The greatly improved system

responsiveness will facilitate enhanced departmental service. With the exceptions of future capacity upgrades and the department's new Green Building under construction and scheduled for completion during August, 2005, the five-year Ethernet project is complete.

As the department's communications infrastructure continues to evolve, utilization must be known to plan for growth and systems must be reliable. Therefore, during FY2003 the department continued to enhance network capabilities by upgrading network management tools. These tools enable the department to monitor communications equipment and perform capacity monitoring and trend analysis of statewide data circuits. These new capabilities compliment previous efforts that included relational database (DB2) and Notes performance management tools; and remote software installation, configuration and auditing capabilities. Also, during FY2003 the department's network management "tools" detected and prevented approximately 100 virus incidents per day and "filtered" 2.8 million incidents of "spam" mail. The number of filtered spam messages does not include many that are blocked from the Far East via IP addresses (which prohibits them from being counted in our totals). Filtering capabilities also continue to be used to prohibit access to inappropriate Internet sites. All network management capabilities support quick problem diagnosis, enables software license metering, extends fault-tolerant capabilities, and improves system reliability. Implementation of appropriate tools will continue to enhance the department's network management capabilities during the coming years.

Much has also been accomplished in the server consolidation category. The demand for web-based applications mandated the upgrading three servers used to support the department's evolving software applications environment. Three office automation servers and the server used to support remote software installation, configuration and software auditing capabilities were also upgraded. In addition to improving efficiency and availability, these enhancements enable the implementation of new department-wide software applications, including e-government initiatives.

With the growth of PCs, networks and communications requirements throughout DNR, the department needs to attain the expertise required to integrate and maintain the resultant infrastructure. Training is also required for specific products such as the network management software, the firewall and the e-mail system. Therefore, during FY2003, 21 departmental automation support personnel attended 67 technical courses.

In addition to the training our technical support staff receives, it is also important that we train our employees to use the automation tools provided to them. Therefore, employees and supervisors work together to determine which courses are appropriate. During FY2003, over 102 department employees attended training for topics such as SAM II; Microsoft Word, Excel, Access and PowerPoint; and the FOCUS query tool. New vendor training contracts make it possible for employees to attend this training for 24 percent of what it previously cost them. Most training accomplished during FY2003 was held at the department's computer training facility, and training in all areas will continue to be a priority during the coming years.

## ***Internet***

The department's dynamic web environment implemented to support public access needs continued to grow during FY2003. This environment has grown from approximately 50 web pages of information in early 1996 to over 12,000 pages currently. The public now accesses an average of over one million department web pages per month --- an increase from the less than 100,000 pages per month accessed during FY1999. Currently, the department furnishes databases, technical bulletins and fact sheets to the public via the Internet and we continue to receive requests from the public to provide additional Internet accessible publications and news releases.

Ultimately, the department's web environment will become an environmental information system that will support compliance assistance by facilitating the development of industry sector profiles that will highlight the industries and facilities that are subject to various cross-media requirements. Goals include providing Internet access to cross-linked environmental data, consolidating the reporting requirements of regulated facilities and supporting a facility-wide approach to permitting, enforcement, and inspections. The cross-linked information will strengthen decisions made within the department and impact the decisions of others. It will facilitate an improved understanding of resource issues and informed decision making. Instead of going to numerous programs and agencies for information concerning one entity, the public and staff will be able to access our Internet site and link multiple air, soil and water issues to that particular entity.

The web provides a forum for exchange and an opportunity to collaborate and communicate with the many stakeholders involved in natural, energy and cultural resource use, protection and preservation. Access to environmental data will act as a catalyst for citizens, facilities, and organizations. It will encourage them to consider the environmental impact of their decisions and actions, facilitate public debate on natural resource issues and encourage improvements in the data collected.

## ***Software Systems***

In response to the U. S. Environmental Protection Agency, the DNR's Water Pollution Control Program recently implemented a system to automate the accounting functions of the department's Clean Water and Drinking Water State Revolving Fund (SRF). This system will assure proper accounting by providing essential fiscal controls and procedures.

The department and local agencies in St. Louis, Kansas City and Springfield operate approximately 190 ambient air quality monitoring instruments at 66 locations in our state. The intent of this network is to determine the nature of the State's air quality and the location and severity of any air problems. To facilitate easy, real-time public access to air pollutant information, the department's Air Pollution Control Program (APCP) initiated the development of a new Air Quality Data System (AQDS). The AQDS

currently presents real-time ozone readings collected from these monitors on web pages, but it is designed to also easily accommodate various types of air pollutants. Because this system is very important to Missourians who have health conditions that would be affected by various air pollutants, the APCP plans to enhance this system to include additional pollutants as funding becomes available.

The Water Pollution Control Program also initiated the development of a Centralized Application Tracking System (CATS). The CATS is an Intranet application used to track the status of water pollution permit applications to help ensure they are processed within 60 to 180 calendar days (depending upon the type of permit required). Because this system is designed for utilization as an enterprise-wide application, it can be easily modified to accommodate tracking the status of other types and permits and licenses.

## **Planned Projects**

All of the above listed infrastructure, Internet and software initiatives must, and will, continue to evolve. Specifically, e-government (i.e., web) projects will ultimately simplify citizen, business and government interaction. The department's efforts will focus on reducing our customer's cost to file "hardcopy" returns and forms to meet regulatory requirements. The department will also realize improved processing time and cost savings through reduced labor previously required to enter data and process paper. Hence, overall benefits will include more efficient department operations and improved customer satisfaction.

### ***Geographic Information System***

The department will continue to develop a centrally managed Geographic Information System capable of serving the data and mapping needs of the department and its constituents. It will enable the department to address spatial technology issues from a global perspective and will facilitate improvements in the way the department operates by providing the information the department collects in formats that will increase its availability, understanding and usability by stakeholders and decision-makers. The system will be the focal point for ongoing data system integration efforts, and will facilitate a better understanding and management of our natural and cultural resources by providing the department and the public with interactive mapping capabilities through the World Wide Web. The development and implementation of this system will be a key to turning the vast stores of departmental data into useful and easily comprehensible knowledge.

### ***Communications***

From a statewide perspective, communications needs resulting from data center consolidation efforts, the rapid growth of client-server applications and the deployment of multimedia services mandate the need for a communications-computer environment designed to integrate robust corporate data bases with an evolving, powerful PC-based multitasking environment. To address this need and to facilitate cost-effective and efficient operations, the DNR will continue to address the infrastructure components

mentioned previously and will aggressively pursue partnerships with other state and federal agencies.

### ***Software Projects***

Many of the ISP identified projects are interdependent, and all current and future initiatives originate from them. All ISP software projects will adhere to the strategy of utilizing Advantage:Gen software development “methodologies” and WebSphere/JAVA tools for actual application development. Additionally, an integral part of the target communications-computer environment is a standard hardware and software environment. All emerging department standardization strategies will adhere to evolving statewide standards. The ISP projects personify the statewide strategy of focusing on access, optimization and innovation when providing services and making information readily available and easily accessible to the Missouri public. Resources are being shared and used to their maximum potential and solutions are being implemented in a manner that provides the greatest overall benefit.

## **Accumulated Demand**

Maturation and enhancement of current system capabilities are imperative as the department focuses on quality and delivery of excellent, reliable service. The department has also identified over 30 applications that should be web-enabled to support public access requests. Despite inadequate resources, the DNR will continue to strive to implement and maintain a robust, evolving infrastructure to meet this demand. These public access needs must be supported and department employees must have reliable communications-computer systems to facilitate quick decisions and actions as they strive to fulfill the DNR mission.

<b><i>General Department Profile (2003)</i></b>		
Department Name		
<i>Natural Resources</i>		
Street Address	City	Zip
<i>205 Jefferson Street</i>	<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL
<i>751 6525</i>	<i>751 7749</i>	<a href="http://www.dnr.mo.gov">www.dnr.mo.gov</a>
Department Director		
<i>Mr. Steve Mahfood</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>2012</i>	<i>5,000,000</i>	
Agency Mission (brief statement)		
<i>The Department of Natural Resources' mission is to improve the quality of life and economic well being of all Missourians by fostering the prudent use of our air, land, water, cultural, and energy resources.</i>		

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Natural Resources</i>		
Department CIO Name		
<i>Chris Wilkerson</i>		
Street Address	City	Zip
<i>205 Jefferson Street</i>	<i>Jefferson City</i>	<i>65102</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>751 6525</i>	<i>751 7749</i>	<i>Chris.wilkerson@dnr.mo.gov</i>
<b><i>CIO Membership in Professional Associations – Leadership Role Involvement</i></b> <i>(i.e., NASCIO – serve on architecture standards committee)</i>		
IT Division Name		Website URL
<i>Division of Administrative Support, Management Information Services Program</i>		<a href="http://www.dnr.mo.gov/das/mis">www.dnr.mo.gov/das/mis</a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>30</i>	<i>Approximately 40</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>0</i>	<i>0</i>	
Security Officer Name	Phone No.	E-mail
<i>None</i>		
Privacy Officer Name	Phone No.	E-mail
<i>None</i>		
ITAB Alternate Name	Phone No.	E-mail
<i>Mr. Jim Myers</i>	<i>751 6525</i>	<i>Jim.myers@dnr.mo.gov</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Chris Wilkerson</i>	<i>751 6525</i>	<a href="mailto:Chris.wilkerson@dnr.mo.gov">Chris.wilkerson@dnr.mo.gov</a>



<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Natural Resources</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Windows 2000</i>
Mid-range	
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 2000</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Via the SDC</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Server = McAfee, Firewall = Checkpoint</i>
Desktop	<i>McAfee</i>
Internet	<i>Securemail = Tumbleweed &amp; WebSense</i>
Help Desk Packages (Magic, GWI)	
<i>GWI</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>DB2 (primary), ORACLE &amp; SQL required for specific "products"</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Advantage:Gen &amp; WebSphere</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Lotus Notes</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>PVCS</i>
Telecommunications (T1, Frame Relay, etc.)
<i>T1, MAN, DS3</i>
GIS (ArcView, MapInfo)
<i>ArcView, ArcInfo, ArcSDE, ArcIMS</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Missouri Public Defenders Office

#### **Accomplishments**

##### ***Utilizing Technology for Agency Efficiency***

The Mission of the Missouri State Public Defender System is to provide high quality, zealous advocacy for the people who are accused of crime in the State of Missouri. All information technology projects are initiated in support of this mission and strive for enhanced quality and savings in all business processes. Information technology plays a key role because the Public Defender System employees are dispersed at more than forty locations throughout the State of Missouri.

##### ***Forms Redesign***

All paper forms were evaluated and reconstructed utilizing existing technology for maximum cost saving. Standardized templates were developed and electronically distributed to all offices. The electronic case management system was enhanced to decrease the reliance on pre-printed letterhead, envelopes, and labels. These improvements in document generation functions increase the efficiency of every employee along with significant savings from eliminating pre-printed items.

##### ***Case Load Management***

As the Public Defender Office continues to struggle with higher caseload numbers, information technology enhancements have been made to the case management system. Tracking specialized situations that are increasing the overall caseload has been implemented. Drug court cases and the mandated trial penalty phase are two examples. Enhancements were also made to allow managers to view data to assist with the distribution of case assignments between new and seasoned attorneys. Appellate Division caseload management was improved with the addition of an electronic Case Summary sheet, a single document that tracks all the important and very different phases of Appellate and Post-Conviction Relief cases. Standardized appellate and post-conviction relief disposition codes were also implemented this year, making annual statistics and caseload management more reliable. Chronology tracking detail was added to the Discovery Library databases, used mainly by the Capital Division, making it easier

for attorneys to see the full timeline in complex death penalty cases. Access to critical management information has also been improved in the areas of expense reports and time keeping.

### ***Web-based Legal Research***

The Public Defender System utilizes web-based legal research in order to reduce costs associated with the storage and purchase of hard-copy documents. This also removes the reliance on outdated information inherent in utilization of hard copy. Public Defenders continue to utilize many free web-based tools for various investigative researches. The Information Technology department supports an internal web page that routes employees to these investigative and legal pages, removing the necessity for each investigator to individually search the entire Internet.

### ***Email and Web Page Migration***

In compliance with the statewide consistency standards, the Public Defender web page and email system was converted to the MO.GOV domain. The agency continues to maintain dual email addresses and web pages until the final migration can be completed.

### ***Safeguarding Electronic Information--Computer Software Patch Management***

Due to the numerous and constant destructive attempts to exploit software programs, the IT Division has implemented an automated system to install critical software patches on all Public Defender computers throughout the state utilizing Microsoft's Software Update Service. All workstations are configured to periodically check a patch server for updates that have been tested and approved. Updates are then installed on the PCs in the early morning hours without IT or user intervention.

### ***Safeguarding Electronic Information--Antivirus Defense***

A system has been developed that provides the ability to remotely manage antivirus installations and updates across the agency. Antivirus updates are distributed to workstations and servers as updates are made available on the Internet. Agents running on the workstations report vital status and statistics back to a central site for tracking and reporting. Antivirus protection is maintained on all internal servers, workstations, laptops and border servers.

### ***Office Relocations and Lack of Physical Security***

Moving the physical location of offices creates an ongoing responsibility for the Information Technology staff. New locations must be wired for computers, telephones, and network access. Computer equipment must be moved and reconfigured for the new location. The State Public Defender enabling statute 600.040.1 requires that counties provide office space and utilities for the Public Defender. The location of the physical plant of local Public Defender offices depends upon the ability and/or willingness of local county governments to provide office space. Under the current statute, the Public Defender administration has little control over where offices are located and the number

of times they must move. Lack of control of office space also significantly hinders IT control of the physical security of our equipment.

### ***Facilities Database***

A new Facilities Database was created in Lotus Notes. Previously, all information about leased or county-owned buildings was held either in separate paper files or in locally stored spreadsheets. Now, the database is online and available to both the Directors and the local offices. Public Defender employees now have easy access to important information such as lease expiration, emergency contact information, copier location and cost-per-copy details, and phone and postage meter specifics.

### ***Purchase Order and Encumbrance Database***

This internal system was enhanced this year to allow employees who do not have SAM II purchasing authority to receive electronic pre-approval of all purchase requests. It automatically creates a purchase order form that can be emailed to the vendor after it has been electronically approved. The system also allows for the tracking and electronic storage of all bid documentation, which removes the necessity for paper storage. The changes also allow the Fiscal Director greater oversight of the bid process and encumbered funds.

## **Planned Projects**

- ❑ Utilize technology in every business area to enable the Public Defender system to be the most effective and cost-efficient agency possible.
- ❑ Integrate and enhance information sharing with all other criminal justice related agencies.
- ❑ Participate in new wide-area network resource sharing with other state agencies.
- ❑ Develop Human Resources imaging system and business reengineering for greater efficiencies.
- ❑ Integrate electronic calendars and the case management system.
- ❑ Enhance policies and procedures for computer security and business continuity.
- ❑ Upgrade all servers to the newest Microsoft server and Lotus Domino versions.
- ❑ Upgrade all workstations to the newest Lotus Notes client version.

## **Accumulated Demand**

With the pervasiveness of computing comes concern for support, training, web page design, application requests, and the implementation of new hardware and software. The Public Defender system has a backlog of requests for application development and enhancements, as well as expectations for connectivity and statewide access at 24x7 availability. Business requirements, process improvements, and electronic procedures that enhance existing systems will be addressed as personnel availability allows. Information technology staff retention is the key to reducing accumulated demand and

moving forward at a pace required by our client needs and the expectations of Missouri citizens.

### ***General Department Profile (2003)***

Department Name

*Missouri State Public Defender*

Street Address

City

Zip

*3402 Buttonwood Dr.*

*Columbia*

*65201*

Main Phone Number

Main Fax Number

Website URL

*573-882-9855*

*www.PublicDefender.mo.gov*

Department Director

*J. Marty Robinson*

Number of FTE (entire department)

Approximate number of citizens served

*560*

*80,000*

Agency Mission (brief statement)

The mission of the Missouri State Public Defender System is to provide high quality, zealous advocacy for the people who are accused of crime in the State of Missouri. All Information Technology projects are initiated in support of this mission and strive for enhanced quality and savings in all business processes.

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri State Public Defender – IT Division</i>		
Department CIO Name		
<i>Mary Willingham</i>		
Street Address	City	Zip
<i>3402 Buttonwood Dr.</i>	<i>Columbia</i>	<i>65201</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-882-9855</i>		<i>mwilling@mspd.mo.gov</i>
<i>CIO Membership in Professional Associations – Leadership Role Involvement</i> <i>Co-Chair of ITAB and member of Architecture Review Committee</i>		
IT Division Name		Website URL
<i>IT Division</i>		
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>8</i>	<i>0</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>0</i>	<i>0</i>	
Security Officer Name	Phone No.	E-mail
<i>na</i>		
Privacy Officer Name	Phone No.	E-mail
<i>na</i>		
ITAB Alternate Name	Phone No.	E-mail
<i>John Mullen/Mary Anne Flesch</i>	<i>573-822-9855</i>	
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>na</i>		



<b>Department Technology Profile (2003)</b>	
Department Name	
<i>Missouri State Public Defender</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Microsoft NT</i>
Mid-range	
Networked	<i>yes</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Microsoft Windows 2000</i>
Dumb terminal	<i>0</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>Tcp/ip</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>SDC</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MOREnet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>NT, Network Associates,</i>
Desktop	<i>Win2000, Network Associates</i>
Internet	<i>I.E.</i>
Help Desk Packages (Magic, GWI)	
<i>Lotus Notes in house</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Lotus Notes</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Lotus Notes</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Lotus Notes</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>na</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>na</i>
Telecommunications (T1, Frame Relay, etc.)
<i>TI</i>
GIS (ArcView, MapInfo)
<i>no</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Revenue

#### **Accomplishments**

##### ***Online Usage Grows***

The Department of Revenue witnessed significant growth in the usage of its online applications – including vehicle license plate renewal, individual income tax filing, business registration, and GIS-based sales tax information – during 2003. Although we were excited to unveil new applications over the years, we know that our smooth transition into “maintenance mode” within these applications is a mark of the maturing and acceptance of doing business online with the department.

##### ***Notice of Lien (e-NOL) & Record Lookup***

Lien holders and vehicle dealers are now able to file their notices of lien online, using an Internet application. Because of a law change, issued titles are no longer mailed to lien holders, but directly to the vehicle owner. Lien holders, therefore, found they needed a convenient way to check title records for evidence of their liens. The NOL system was expanded to include a title record lookup function. Payment for both services is by automatic debit through an automated clearinghouse (ACH). In the first five months of operation, users recorded more than 35,000 NOLs and 28,000 lookups.

##### ***Electronic Purchase Requisition System***

The department implemented a complete browser-based purchase requisition system, streamlining and automating the entire routing and approval process. The system was deployed department-wide, resulting in significant savings in time and materials.

##### ***Expanded Use of 2-D Barcodes***

Using new technology, our fillable PDF tax forms will now generate and print 2-D barcodes, right from the taxpayer's home printer. The barcodes, which encode the entire form, including the taxpayer's input, will be integrated into the 2003 Form MO-1040 and its attached schedules. Use of 2-D bar-coding will simplify the department's processes by dramatically reducing the data entry time required for each form. Not only will this save the state money, but it will also improve customer satisfaction by reducing both mistakes and processing time.

### ***Additional Payment Options***

As the department's experience with credit card service providers matures, it has expanded the availability of online payment to other tax types. The department now accepts on-line credit card and e-check payments for current and delinquent amounts owed in withholding tax, individual income tax, and sales & use tax.

## **Planned Projects**

### ***Implement Mobius***

Mobius software allows online access to various mainframe reports and forms. Once implemented, this will increase internal departmental efficiency and reduce the amount of paper that is printed, distributed and stored.

### ***Corporate Income Tax e-File***

The department is following IRS guidelines to initiate electronic filing of corporate income tax returns in 2005.

### ***Upgrade and Improve Automated Collection System***

The department is working with American Management Systems (AMS) to implement a new web-enabled version of the department's automated collection system, Computer Assisted Collection System Plus (CACSPPlus), as well as its risk management decision engine, Strata. The new systems will improve service for Missouri taxpayers through automated payment options and help our employees focus their collections efforts, increasing efficiency and reducing costs. Project funding is benefits-based, allowing the state to pay for the project using newfound revenue from previously uncollected taxes.

## **Accumulated Demand**

### ***Intranet Information and Applications***

As resources tighten, it becomes more important for the department to devote development time and effort to "outward-facing" applications. While this is excellent for many taxpayers, one unfortunate result is that internal, efficiency-enhancing applications may be deferred.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Department of Revenue</i>			
Street Address		City	Zip
<i>301 West High Street</i>		<i>Jefferson City</i>	<i>65101</i>
Main Phone Number	Main Fax Number	Website URL	
<i>573-751-4450</i>	<i>573-751-7150</i>	<i>www.dor.mo.gov</i>	
Department Director			
<i>Carol Russell Fischer</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>1,919</i>		<i>5 million</i>	
Agency Mission (brief statement)			
<i>The Department of Revenue is the central collection agency for all state revenues. The primary duties of the department are the collection of taxes, titling and registering motor vehicles, and licensing drivers throughout the state.</i>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Department of Revenue</i>		
Department CIO Name		
<i>Jim Weber</i>		
Street Address	City	Zip
<i>301 West High Street</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-3100</i>	<i>573-522-9795</i>	<i>Jim.Weber@dor.mo.gov</i>
CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)		
<i>PMI</i>		
IT Division Name		Website URL
<i>n/a</i>		<i>www.dor.mo.gov</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>126</i>	<i>3</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$0</i>	<i>\$0</i>	
Security Officer Name	Phone No.	E-mail
<i>Jim Davenport</i>	<i>573-522-9819</i>	<i>Jim.Davenport@dor.mo.gov</i>
Privacy Officer Name	Phone No.	E-mail
<i>Jim Davenport</i>	<i>573-522-9819</i>	<i>Jim.Davenport@dor.mo.gov</i>
ITAB Alternate Name	Phone No.	E-mail
<i>Kay Dinolfo</i>	<i>573-751-4584</i>	<i>Kay.Dinolfo@dor.mo.gov</i>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Jim Weber</i>	<i>573-751-3100</i>	<i>Jim.Weber@dor.mo.gov</i>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Revenue</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>z/OS (SDC)</i>
PC Servers	<i>Novell Netware 6.0, Windows NT, Windows 2000</i>
Mid-range	<i>AIX</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 95/98/NT Workstation/2000</i>
Dumb terminal	<i>Hummingbird 3270 emulation</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA, IPX, NetBios</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>DSL; dialup via Shiva</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MOREnet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAfee</i>
Desktop	<i>Network Associates McAfee VirusScan</i>
Internet	
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>IDMS, DB2, Oracle, SQL, MS Access</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>WebSphere (Java), CICS, COBOL, .Net, ADSO, Visual Basic, Lotus Notes Domino</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>MS Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL (Internet)</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>Visual Source Save, Librarian (Mainframe)</i>
Telecommunications (T1, Frame Relay, etc.)
<i>Frame Relay</i>
<i>ArcView</i>



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Office of the Secretary of State

#### **Accomplishments**

##### ***Proposed Rules E-Mail Notifications***

The Administrative Rules Section of the Missouri Office of the Secretary of State is responsible for publishing administrative rules and regulations. The Secretary of State publishes the *Missouri Register* twice a month to keep Missourians informed of pending rules and regulations. After the rules have been adopted, they are codified and printed in the *Missouri Code of State Regulations*. The *Code of Regulations* is a 14-volume, loose-leaf printed set that is updated monthly.

In May 2002 the Secretary of State began a project to automate the process utilized by the Administrative Rules Section to review and publish rules. In November of 2002 work began on a system that would ultimately—1) allow Administrative Rules staff to log proposed rule information through a web interface, automatically generate e-mail notifications concerning proposed rules, and allow Missouri citizens to subscribe to the e-mail notifications through a web page; 2) allow Administrative Rules staff to import rules into a database; 3) automate the publishing of the *Missouri Register* and the *Missouri Code of Regulations* in both print and electronic media; and 4) allow agencies to submit rules through a web page.

In November of 2003 the first release of the system was put into production. The e-mail notification capability was put into production in December 2003.

##### ***Freedom Suits in Antebellum Missouri***

In February 2003 Secretary of State Blunt made available online an innovative lesson plan for Missouri teachers who want to introduce their students to a "lost chapter" in the history of African Americans in Missouri.

The online lesson plan is part of Blunt's African American History Initiative, a program to use the unique resources of the Missouri State Archives in expanding all Missourians' knowledge of the state's rich, culturally diverse history. The classroom enrichment activity is intended to support educators in developing curriculum for Black History Month and is geared toward 4th through 8th grade students. Original documents included

in the project are the petitions for freedom from two early suits, as well as the Freedom Statute from the Laws of the Louisiana Territory, before Missouri entered the Union. The Freedom Statute as it appeared in the 1825 Laws of the State of Missouri, produced by the General Assembly in 1824, is also represented in the project.

The Missouri State Archives, a division of Blunt's office, is the officially designated repository for all state records of permanent and historical value. Records dating back to 1770 tell of Missouri's history under French and Spanish colonial rule, as a U.S. territory, and finally as a state.

African American history highlights include documents relating to slavery, the Civil War, and civil rights conflicts. The records are located among legislative, judicial, gubernatorial, and military collections.

Through this initiative the State Archives has created a fully annotated guide for all of its holdings; digitized and made available online an extensive series of original documents related to African American history; and created original classroom teaching aids and materials on African American history for elementary students.

### ***Digitized St. Louis Circuit Court Slave Freedom Suits Online***

In conjunction with Washington University and the St. Louis Circuit Court, the Secretary of State made available online digitized slave freedom suits from the St. Louis Circuit Court that shed new light on the complex institution of slavery and St. Louis' remarkable openness to legal challenges to slavery. Individually and as a whole, these cases demonstrate the determination of the enslaved to be free and the willingness of some white St. Louisans to assist them.

The case files presented online through the St. Louis Circuit Court Historical Records Project consist of approximately 280 legal petitions for freedom from slavery. Originally filed in the St. Louis Circuit Court between 1814 and 1860, these records make up the largest single collection of freedom suits available for research in the United States.

The placement of these freedom suits online is part of a larger ongoing project involving four million pages of St. Louis court records dating between 1804 and 1875. On July 3, 2002, Secretary Blunt announced the placement online of eighty-one court cases concerning Meriwether Lewis, William Clark and members of the Corps of Discovery that were previously unknown to history.

### ***Internet Lessons On Missouri Journey of Lewis and Clark***

The nation's bicentennial commemoration of Lewis & Clark's expedition officially began with a celebration at Thomas Jefferson's home at Monticello in January 2003 and will continue through 2006. Secretary Blunt has expanded his office's support for the bicentennial by making available online a resource for educators – the *Mapping Lewis & Clark in Missouri Curriculum*.

To develop the new curriculum for the Lewis & Clark Bicentennial in Missouri, the Missouri State Archives, a division of the Secretary of State's Office, asked the Missouri Research and Education Network (MOREnet) and its eMINTS program (Enhancing Missouri's Instructional Networked Teaching Strategies) to create curriculum units in support of the "Lewis and Clark Historic Landscape Project."

The Archives'-commissioned Historic Landscape Project was conducted by the Geographic Resources Center at the University of Missouri-Columbia. Its maps were featured in the April 2002 edition of National Geographic magazine. Nineteenth century land survey records were combined with modern mapping technology to produce this groundbreaking series of maps covering both the Missouri and Mississippi river corridors. For the first time, students have the opportunity to see the natural landscape of Missouri, as it was when Lewis & Clark began their voyage of discovery.

Using the Historic Landscape Project, MOREnet and eMINTS have developed three grade-specific units geared toward Show-Me and MAP Performance standards for elementary, middle and high school students. The resulting lessons are grounded in geography, and are meant to create in students an appreciation for the spirit of discovery as evidenced in the compelling drama of the Great Expedition.

### ***Supreme Court Historical Database Available Online***

The database is an online resource allowing access to more than 7,000 legal actions pursued to the highest court between 1790 and 1871. Researchers can search by name of appellant or respondent, cause of action, year, or keyword. Blunt is the custodian of the historical records of the Supreme Court of Missouri, created in 1820, and its legal U.S. territorial and French colonial predecessors.

Begun in 2000, the database is the result of a successful partnership between the Missouri State Archives, a division of the Office of the Secretary of State, the Supreme Court of Missouri, and the Supreme Court of Missouri Historical Society. The Archives is the official repository for the records from the state's highest court. The purpose of the Supreme Court of Missouri Historical Society is to encourage an appreciation of Missouri's legal history.

The Missouri Supreme Court Database provides an index and abstract of the criminal and civil court cases that were appealed to the state Supreme Court from the 1790s to 1851; a partial listing of cases is available to 1871. The goal is to create a complete index for case files from the eighteenth century to the twenty-first century. Until the development of this database, historical research of these records was difficult, and sometimes nearly impossible.

The case files evolve from French fur trappers to steamboat cases of Mark Twain's era. Court dockets feature the names of prominent Missourians alongside the infamous and notorious. Although litigants came from the entire range of Missouri society, the vast majority of cases involve relatively unknown citizens. These cases provide great insight into the lives of many common Missourians that were only sporadically documented during the first century of the state.

## ***New Corporations System***

In May of 2003 the Corporations module of the SOS KB system was put into production replacing a legacy mainframe system that was more than 20 years old. The Corporations module was the second piece of the SOS KB system to be put into production. The new system allows the Corporation Section to scan in filed documents, greatly improves accessibility to the documents, allows individuals to file annual reports online, and allows individuals to obtain certificates of good standing online.

## ***Other Information System Projects***

Other projects completed during 2003 are as follows:

- ❑ Vault – an application that tracks microfilm stored in the Secretary of State's microfilm vault.
- ❑ Adoptions – an application that tracks certification of state documents required to adopt children in foreign countries.
- ❑ Table of Contents – an application that maintains a list of state employees and their journal subscriptions that are delivered electronically by the State Library.

## ***Infrastructure***

This project includes communications and server upgrades. The wiring upgrade is continuing. This includes eliminating all the CAT 3 wire and replacing it with CAT 5 or better wiring. With the increase in use of technology we have a need to expand our storage capacity. Additional software to assist in the management of the infrastructure has been licensed. This would include such products as Help Desk, System Managed Storage, etc. All of these efforts move us to preparing a quality solution with minimal impact to the ongoing production work at the Secretary of State.

## **Planned Projects**

### ***Infrastructure***

The Secretary of State is continues to upgrade the communications and server components of its local area network. In addition, measures are being taken to ensure the security of the network.

### ***Help America Vote Act – Voter Registration Database***

During the next two years the Secretary of State's IT staff will be spending a significant amount of time implementing a statewide voter registration database that meets the requirements of the Help America Vote Act.

### ***Other Planned Projects***

Other planned projects include the following:

- ❑ Administrative Rules – Releases 3 and 4 that will automate the publishing of the Missouri Code and Register and allow state agencies to submit proposed rules and rulemakings online.
- ❑ Library Development Database – an information system that will maintain information pertaining to Missouri libraries.
- ❑ Securities Enforcement System – an information system that will track enforcement cases handled by the Secretary of State’s Security Division.
- ❑ Records Management System – an information system that will track state agency records stored at the Secretary of State’s office.
- ❑ Archive Collections Available Online – the Secretary of State will continue to make enhancements to the SOS website providing additional collections online. Online Finding Aids will be included in this project.

### **Accumulated Demand**

Several projects of various size and complexity are outstanding.

<b><i>General Department Profile (2003)</i></b>			
<i>Missouri Office of the Secretary of State</i>			
Street Address		City	Zip
<i>600 West Main Street</i>		<i>Jefferson City</i>	<i>65101</i>
Main Phone Number	Main Fax Number	Website URL	
<i>(573) 751-4936</i>	<i>(573) 751-2490</i>	<a href="http://www.sos.mo.gov">www.sos.mo.gov</a>	
Department Director			
<i>Matt Blunt</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>265</i>			
Agency Mission (brief statement)			
<i>The mission of the Missouri Secretary of State's Office is to support democracy by ensuring honest, fair, and reliable elections; providing essential information to enlighten citizens and enrich their lives; foster confidence in the integrity of Missouri business; promote appreciation of our common heritage; and carry out these functions in an efficient and effective manner, so as to reflect credit upon the office as a servant of Missouri citizens.</i>			

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri Office of the Secretary of State</i>		
Department CIO Name		
<i>Don Lloyd</i>		
Street Address	City	Zip
<i>600 West Main Street</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>(573) 751-8471</i>	<i>(573) 522-9947</i>	<i>Don.Lloyd@sos.mo.gov</i>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
IT Division Name		Website URL
<i>Information Technology</i>		
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>14</i>	<i>0</i>	
Total \$\$ value of FY04 IT requests submitted to OA Budget and Planning		
<i>\$3,720,792</i>	<i>\$3,720,792</i>	
Security Officer Name	Phone No.	E-mail
<i>Justin Baker</i>	<i>526-2125</i>	<i>Justin.baker@sos.mo.gov</i>
Privacy Officer Name	Phone No.	
ITAB Alternate Name		E-mail
SDC Steering Committee Rep Name	Phone No.	E-mail

<b>Department Technology Profile (2003)</b>	
Department Name	
<i>Missouri Office of the Secretary of State</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>IBM, HP</i>
Mid-range	
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 2000</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAfee Virus Scan</i>
Desktop	<i>McAfee Virus Scan</i>
Internet	<i>McAfee Virus Scan</i>
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>MS SQL Server</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>Microsoft .NET</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>Verisign</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	



<i>Source Safe</i>
Telecommunications (T1, Frame Relay, etc.)
<i>TI</i>
GIS (ArcView, MapInfo)

# *Office of Information Technology*

## **2003 State of the State IT Report**

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### **Department of Social Services**

#### ***Introduction***

The mission of the Department of Social Services (DSS) is to maintain or improve the quality of life for the people in the State of Missouri by providing the best possible services to the public, with respect, responsiveness and accountability, which will enable individuals and families to better fulfill their potential. The Information Services and Technology Division (ISTD) supports this mission by providing data systems and technology services essential for administration of social services programs.

### **Accomplishments**

#### ***Department Reorganization***

The Governor's Executive Order providing for the reorganization of DSS went into effect in 2003. Security changes needed to accommodate the formation of the Children's Division and the Family Support Division (FSD) were identified and implemented.

#### ***Health Insurance Portability and Accountability (HIPAA)***

The Health Insurance Portability and Accountability Act (HIPAA) provides for the standardization of electronic patient health, administrative and financial data while requiring the implementation of stringent privacy and security requirements. In 2003, an automated disclosure tracking system was developed and implemented to comply with new privacy requirements, departmental staff were trained on privacy standards and new policies regarding the protection of health information, programming changes were implemented to use standard code sets, and a risk assessment started in preparation for upcoming security requirements.

#### ***Children's Services Systems - Electronic Report Generating System Development***

DSS worked with the Local Investment Commission in Jackson County to develop an electronic report generating system for Children's Services' systems. Ad hoc managerial reporting is assisting approximately 350 supervisors in caseload assignment and staff management; while case management reports are providing comprehensive service

history for the 60,000 cases and has increased the data resources available to approximately 1,500 social workers throughout the case management cycle. Management and case management reporting are federal requirements for the State Automated Child Welfare Information System. Reports providing child abuse investigations, assessments, reminder notices and caseload analysis/status information were implemented in the spring of 2003. Report for multi-system summarization of client information was implemented in July 2003.

### ***Missouri Juvenile Justice Information System***

The Juvenile Crime Bill, signed into law in 1995, mandates the sharing of juvenile information between specific state agencies. The Missouri Juvenile Justice Information System (MOJJIS) was developed by the Office of State Courts Administrator to bring agencies into compliance with this law. During 2003, an automated disclosure tracking system was developed and implemented to fulfill MOJJIS design requirements and administration of DSS users in MOJJIS was incorporated into regular daily operations.

### ***Software Migration***

To comply with audit requirements, ISTD has a formal process to migrate code from the development environment to production. In 2003, revisions and enhancements were implemented to incorporate web development software migrations and to further automate the overall process.

### ***On-line Reporting***

ISTD has a strategic goal to provide DSS staff with access to more information. Two software packages are available to accomplish this.

The first is a vendor supplied report distribution system, MOBIUS, that allows paper-based reports to be distributed and viewed on-line through a browser. The on-line reports can be accessed almost immediately after they are created and can be indexed for quick retrieval or archived for future use. During 2003, over 130 paper-based reports were converted to on-line reports.

The second package, WebFocus, is an on-line query system that enables users to run real-time ad hoc reports or more complex “canned” reports developed by technical staff. During 2003, an upgrade of the WebFocus servers was initiated and the use of WebFocus was expanded to include reports created for the Children’s Division and Energy Assistance.

### ***Children’s Services - Structured Decision-Making Tool vs Protocol Development***

DSS worked with the National Council on Crime and Delinquency, Children’s Research Center on implementing a structured decision-making (SDM) tool for classification of calls received at the child abuse and neglect hotline to meet State Automated Child Welfare Information System requirements with a web-based presentation. The SDM tool utilizes decision trees and produces standardize assessment of child abuse and neglect

hotline calls while information provided by the caller is immediately entered into the web application. Implementation was scheduled for January 2003. This will increase productivity of the social workers and standardize the evaluation of the child abuse and neglect hotline calls. Protocol is scheduled to be implemented during 2004.

### ***Children's Services Integrated Payment System - Payroll Automation***

Multiple payroll edits have been implemented during 2003. The Management Review Team requested two in particular. One was establishing an automatic close on service codes FHE/FHO (Foster Care Emergency/Foster Home) for clients. Providers were receiving additional payments of \$22 per day as long as clients were in these placements; policy restricts the time period to 60 days; placements were not being changed timely. In June 2003, implemented daily check of all Alternative Care clients in FHE/FHO and automated placement change. Substantial money savings were encountered and a reduction in staff time to update the system.

The second MRI request, completed in July 2003, was to install numerous edits, which interfaced with five systems to substantially reduce the number of duplicate payments that were occurring in the Children's Services Integrated Payment System (CSIPS). CSIPS payroll managers have seen a substantial decrease in overpayments and improved service delivery to children and providers, a reduction in the time the payroll unit spent in resolving overpayments, a decrease in administrative costs and enhanced fiscal control.

### ***Automated Searches for Child Abuse/Neglect Hotline Participants***

A web-based Intranet system for specific names or client identifiers searches was implemented in October 2003. Searches are used by hotline staff to obtain supporting information to assist 1,500 field workers in quick response, case assessment and management to calls of abuse and neglect. Previously, 37 screens were used to obtain the data from seven systems, which now are returned with a single driver screen. Considerable employee time savings has been obtained and a standardization of the data.

### ***Child Abuse/Neglect Automated On-Call Directory***

A web-based Intranet system was implemented in October 2003 to facilitate the tracking of 'who's on call' to receive a Child Abuse/Neglect (CA/N) hotline call. System designed to allow county and business unit offices to maintain staff personal telephone numbers and special instructions for after-hours, dates and times of coverage, back-up coverage and assignments of supervisors, managers and default back-ups to insure no unit is without coverage. Directory data is returned on-line to hotline staff with entry of three-digit county/unit number.

### ***Contracted Agency Tracking***

System was developed to incorporate a unique identifier into the existing county codes to identify contracted Case Management Organizations (CMO) and provide reporting for workers assigned to the CMO and the clients served by the contracted agency. The system stores service county history, case manager county history, worker history and case manager history. Long-term objective to provide ability to monitor performance of

CMOs; assist with peer record review process; and manage future increases in privatization.

### ***Missouri Automated Child Support System - Major Enhancements***

In calendar year 2003, the Missouri Automated Child Support System (MACSS) had 14 major enhancements in work and implemented. There are 5 additional major enhancements awaiting approval by the customer's executive staff. Six major modifications resulting in database changes were also completed.

- ❑ Performance tuning of MACSS online screens and batch jobs is continuing. This tuning has increased the available batch window time as well as saved significant processing costs.
- ❑ Procedures for Configuration Management and Change Control have been established. Procedures have been developed and finalized to handle change requests (small enhancements). Procedures for Project Plan Amendments have also been implemented.
- ❑ To comply with the Governor's Executive Order 03-04, Parent's Fair Share cases were transferred to the Division of Workforce Development, staff attorneys were transferred to the Attorney General's Office, and the Department of Revenue began oversight of the Family Support Payment Center. These events necessitated a number of additional software changes and some new software development. The new structure required additional reporting and tracking as agreed to by the agencies in their cooperative agreements.

### ***Child Support Automated Voice Response Implemented***

Voice recordings for the Child Support Enforcement Payment Information Interactive Voice Response (IVR) were completed in 2003. Modifications provided a clearer and more concise access to child support payment and disbursement information. The MACSS IVR application serves approximately 6,000,000 customer inquiries.

### ***Electronic Benefits Transfer***

A new contract for Electronic Benefits Transfer (EBT) services was awarded in 2002. During 2003 the following modifications to Missouri's EBT system were completed for the new contract, which became effective in February 2003.

- ❑ Reprogramming to accommodate a 10-digit departmental client number on files transmitted to and received from the vendor.
- ❑ Programming to notify clients regarding adjustments to their EBT account.
- ❑ Addition of Transportation Reimbursement Expense (TRE) payments to the EBT card of TA recipients served by the Division of Workforce Development.

### ***Family Assistance Management Information System***

The Family Assistance Management Information System (FAMIS) is a statewide, automated, integrated eligibility system for DSS programs including Child Care, Food Stamps, Temporary Assistance and Medicaid. Resource directory, provider management and childcare components are operational in the FAMIS system. Pilot implementation of the food stamp components of FAMIS began in August 2002. Statewide implementation for the food stamp component was completed in August 2003. Workers are now able to accept applications through an interactive interview for over 250,000 recipients and determine their eligibility online. Enhancements to the system during 2003 included the following:

- ❑ Completed the update of FAMIS notices that are mailed to recipients to use the Mailstream software saving over \$9,000 a month in postage.
- ❑ Converted three part invoice forms sent to the child care providers to a single form printed on standard paper saving over \$1,000 a month in paper and postage costs.
- ❑ Add data elements to the child care screens for Accreditation and Disproportionate Share to allow easier access to payment information for the workers and state office.

FAMIS calculates benefits, produces notices to clients automatically and provides reports for case management and supervisory management for all levels of program administration. Providing automation and immediate access to data is essential for maintaining service delivery levels as eligibility determination continues to become more complex, particularly with the passage of the Welfare Reform law.

- ❑ FAMIS automates labor-intensive processes, thereby speeding delivery of services to clients.
- ❑ FAMIS standardizes benefit eligibility determination, thereby reducing error rates.
- ❑ FAMIS allows staff time to be redirected toward additional welfare reform goals to help clients become self-sufficient.

### ***Medical Assistance Eligibility Income Limit Increase***

Medical Assistance provides Medicaid coverage for elderly and disabled citizens, many of whom have no other medical insurance. The income limit for this program was increased to 90% of the federal poverty level beginning in September 2003. Prior to September, the income limit was based on the federal SSI maximum for spouse cases and 80% of the poverty level for single-individual cases.

An automated process was developed and adjusted approximately 135,000 cases. Development required about 200 hours for the adjustment process. An estimated 75,000 hours would have been required for FSD county staff to manually adjust the cases.

Additional programming was added to the Income Maintenance system to prevent incorrect data entry when Medical Assistance cases are being approved or adjusted by county staff. Programming was also put in place in conjunction with the Medical Services group to prevent the manual processing of approximately 6,000 refunds to

Medical Assistance Spenddown recipients as a result of the increased income limit. It would have required Medical Services' staff about 500 hours to process the refunds.

### ***Spenddown System***

A new system was implemented in the last quarter of 2002 to collect premiums for spenddown Medicaid coverage. Several changes were required as a result of cyclical-related processing; for example, adjustments and spenddown invoicing at certain intervals. System improvements were made after original implementation to better serve the approximately 19,000 spenddown cases.

### ***Medical Assistance for Working Disabled***

A new system was implemented in the first quarter of 2002 to collect premiums for Medical Assistance for Working Disabled (MAWD) Medicaid coverage. Several changes were required in 2003 as a result of cyclical-related processing; for example, adjustments and MAWD invoicing at certain intervals. System improvements were made after original implementation to better serve the approximately 14,000 MAWD cases.

### ***Buy-In***

The Buy-in system was designed to allow states to pay for Medicare Part A and Part B for certain individuals when it is feasibly advantageous for the state. There is an interface with Centers for Medicare and Medicaid Services (CMS) where transactions are exchanged between the state and this federal system. CMS is requiring extensive changes be made to the process for this data exchange. Some programming changes have been made, testing with CMS has started, a purge to accommodate more efficient processing has been completed, and reports have been moved to MOBIUS (an online report viewing system that is less expensive than paper and allows Medical Services more immediate access to the report than paper allowed). The new system allows data exchange to be a daily, rather than a monthly, process to allow states to handle buy-in more quickly rather than be delayed. Currently, the state does buy-in for approximately 100,000 individuals.

### ***Departmental Electronic Communications***

In 2002 DSS began implementation of a new communications system replacing several heterogeneous systems. To streamline electronic communications, it was decided to implement a single, internally managed email system for the entire department. Microsoft's Exchange was selected as the product of choice. In order to implement the new email system, another Microsoft component, Active Directory, was also implemented. These two components provide a communications package with a single directory used for email, resource security and application security. Active Directory and one single email system enhances the department's ability to share resources and communicate across division and project boundary lines. Implementation of Exchange and Active Directory began in July 2002.

Department-wide implementation of Exchange and Active Directory was completed in July 2003. Prosecuting attorney offices and other outside entities are also allowed to enroll in our internal system because of confidentiality requirements.

### ***Desktop Systems Management Implementation***

In 1999, DSS implemented Microsoft's Systems Management Server (SMS) to manage over 4,500 FAMIS workstations. This software provides three functions: inventory, software distributions, and remote control. Based on the success of SMS within the FAMIS environment, the decision was made to expand and standardize on SMS as the desktop management tool for the entire department. To date, SMS has been implemented throughout the FSD, Children's Division, ISTD, Division of Budget and Finance, Division of General Services, and the Office of the Director. SMS enabled ISTD to reduce support costs by distributing software for several projects, performing system updates, and implementing the Microsoft Exchange email system, with a limited number of staff and no travel expense.

Standards for both software and hardware have been established for department-wide use. As existing workstations are replaced, it will be possible to enhance and extend the management of the desktop. Naming standards of workstations and resources have been developed as well as a uniform process for creating and restoring standard images of workstations. This allows support staff in one section to be able to support users in another section crossing divisional and project boundaries.

SMS System Update Service Feature Pack is used to distribute security and system updates. This tool has allowed continued maintenance of a secure computing environment. Because of the rapid rate these updates are released, no manual process could have satisfied business requirements. Use of SMS to collect inventory, distribute software and remote control of personal computers provides an improved support to field staff throughout DSS. The System Update Service also provides the ability to install security updates, enterprise-wide, in a timely, efficient manner. As an example, in one night, 84 updates were distributed to over 7,000 computer systems. Desktop systems management allows ISTD to provide a better level of support at a lower cost.

### ***Paper Forms Reduction***

A committee was formed to automate required paper forms, eliminate unnecessary paper forms, and investigate the use of computer application interfaces instead of paper forms whenever feasible. Obsolete forms were identified and eliminated and work continues on automating forms in an effort to reduce costs and increase efficiencies.

### ***Family Support Division Interface with Department of Labor and Industrial Relations, Division of Workforce Development (DWD)***

An interface between FSD-Income Maintenance and the Department of Labor and Industrial Relations' Division of Workforce Development was implemented to replace the functions formerly handled by the JOBS system. Some Temporary Assistance recipients are required to participate in the program to prepare them for employment. If they are job-ready, the program offers placement services. The new interface allows DWD to work with Temporary Assistance applicants as well as recipients.



The new system screens Temporary Assistance applicants and recipients for job-readiness and tracks barriers for those who are not. FSD case managers continue to work with client's who have barriers to employment to help them become job-ready. Individuals that are required to participate are identified in the Income Maintenance system. The information is processed by the Interface system and then transferred to DWD's Toolbox system. This provides DWD staff the information they need to work with the clients directly.

Data is transferred back and forth between the Income Maintenance and Toolbox system on a daily basis. Currently, a means of allowing Toolbox to access Income Maintenance data in real-time is under development. This enhancement will benefit individuals that apply for Temporary Assistance and then seek services from DWD in the same day.

The chief advantage of the new interface is that Temporary Assistance recipients can now take advantage of DWD's resources and expertise to find employment. DWD has extensive contacts in the labor market that are not available through FSD and they have well-established programs to help individuals find jobs.

### ***Transitional Medical Assistance Suspension Processing***

When an assistance group loses eligibility for Temporary Assistance due to increased earnings, finding employment or the expiration of an earnings disregard, the family becomes eligible for the Transitional Medical Assistance (TMA) program. Under this program, the family is eligible for Medicaid for 6 months and possibly 12 if they meet certain requirements. One of the requirements is to complete a quarterly report listing earnings, childcare expenses, etc., and submit it to their caseworker for review while they are on this program. When a family submits the first report but fails to complete the second or third report, the Medicaid benefits are subject to suspension until the delinquent report is submitted.

Prior to the TMA enhancements, when a quarterly report was not submitted timely, everyone on the case lost Medicaid coverage while the case was in suspended status. This resulted in children that were potentially eligible for Medicaid under other programs to lose coverage until the FSD caseworker could make a new eligibility determination. The new programming only suspends adults on the case and leaves children active. In the event no action is taken by the time the TMA case is to expire in the 12<sup>th</sup> month, the system automatically opens a Medicaid for Children case.

The TMA enhancement prevents eligible children from losing Medicaid coverage and saves FSD caseworkers the time necessary to manually open a Medicaid case to give the children eligibility under another program.

### ***Presumptive Eligibility for Kids***

Systems development was completed in March 2003 for the Presumptive Eligibility for Kids program. This allows children under the age of 19 to receive medical care before they have formally had an eligibility determination completed for MC+/Medicaid. House Bill 1111 appropriated funds enabling Missouri to implement this program. The income

limit for presumptive eligibility in Missouri is 225% of the federal poverty level as that is the highest income limit that Missouri's MC+ program covers without a waiting period.

### ***Annual Automated Adjustments***

As a result of Delinking, 1931 Waiver, and Medical Assistance system revisions, it was necessary to revamp two of the annual automated adjustments.

In December of each year, an automated process is completed that adjusts all Income Maintenance cases that have at least one individual with SSA or SSI. Over 90,000 cases are adjusted in this process. If caseworkers adjusted the cases manually, it would require more than 60,000 hours in the aggregate.

In March of each year, the federal poverty level is increased based on the amount of change in the Consumer Price Index. In prior years, between 100,000 and 200,000 cases were adjusted. Due to 1931 Waiver, Delinking and Medical Assistance revisions, the income eligibility limit on over 400,000 cases is now based on a percentage of the federal poverty level and requires adjustment in March. It would require over 300,000 aggregate hours for caseworkers to manually adjust the cases.

### ***Grandparents as Foster Parents Grant Reduction***

Due to budget reductions, the grants paid to Grandparents as Foster Parents recipients were reduced to 25% of the foster care subsidy amount for the two oldest children in the assistance group with an additional \$55.00 added to the grant for each additional child. An automated mass adjustment process was developed and executed requiring about 40 hours for programming and testing. It would have required about 600 hours for caseworkers to adjust the 1,145 cases.

### ***Medical Assistance for Working Disabled – Failure to Pay Premium Closing***

A number of recipients pay a monthly premium to receive Medicaid benefits under the Medical Assistance for Working Disabled program. When a client fails to pay a premium for six months, they are no longer eligible and the case is closed.

Traditionally, a report would be system-generated when a client failed to pay a premium and sent to the caseworker to take the appropriate closing action. An automated means to close these cases without caseworker intervention was developed. The system then generates letters notifying clients of the closing action and the reason for the closing. The automated process insures that action is taken timely and relieves caseworkers of the burden of closing the cases.

### ***General Relief Grant Reduction and Elimination***

Early in January 2003, FSD reduced General Relief grants to \$9.00 per month from \$80.00 and then increased the grant to \$70.00 per month in March. The increase was made retroactively so any recipient that was paid \$9.00 for February or March eventually received a full \$70.00 grant for each month they were eligible. Effective July 2003, the grants were eliminated entirely. These adjustments were accomplished programmatically

with approximately 300 hours of labor. It is estimated that the three adjustments for this population of about 10,000 cases would have required 7,500 hours for FSD county staff to adjust manually.

### ***Specified Low-Income Medicare Beneficiary (3) Program Discontinued***

This program paid a portion of the Medicare premium for a number of low-income individuals. Congress did not fund the program for 2003 and the benefit was discontinued. An automated process was developed to close these cases. A system-generated notice informed the recipients that the benefit was discontinued.

### ***Federal Interface with SSA - State Online Query***

DSS implemented online real time access to the SSA Enumeration Verification Service, Title II and Title XVI benefit data for the Income Maintenance, Food Stamps and Medicaid programs. This process replaces the overnight batch process. This information is used to verify the names and social security numbers of Missouri recipients receiving assistance. The interface also determines federally funded health and income eligibility benefit amounts administered by the state through the Income Maintenance program. This new enhancement to the system assists the workers in making more accurate and timely eligibility determinations.

### ***Energy Assistance Web Application Implemented***

A new web interface was implemented to facilitate the Low Income Home Energy Assistance Program (LIHEAP) to be available through Missouri's Community Action Agencies (CAA). The CAAs now complete the client registration, application and case maintenance process from the Internet. Previously, this process was managed in the FSD county offices. This change in business management will help to better serve Missouri citizens in need of heating assistance, by allowing the client to apply for both the LIHEAP and Energy Crisis Intervention Program at one agency. In addition to the data entry screens being converted to a web application, the Energy Assistance reports were converted to web delivery, cutting paper costs for the state.

### ***Youth Services Application***

The Division of Youth Services (DYS) operates programs for youths committed by the court each year for delinquency. The Youth Services application captures identifying information on the youth as related to the court commitment, captures all placements of the youth while with the division, captures school schedules and attendance, and captures aftercare services.

During 2003, enhancements were made in the following areas:

- ❑ Added race and gender to handicap census letters to be Department of Elementary and Secondary Education (DESE) compliant.
- ❑ Implemented educational test scores/course changes to be DESE compliant.
- ❑ Improved the tracking of school district information for DYS billing report.

- ❑ Enhanced the Day Treatment portions of the Youth Services application. It improved the usability of the online screens for DYS staff and accuracy of the client data tracked.
- ❑ Implementing a data warehouse of Youth Services data. Working with DYS staff to identify the type of reports needed from the data warehouse. It is intended to supplant DYS information gathered by Research and Evaluation staff as well as the reports produced by Department Support Team.
- ❑ Revamped the online educational transcript process due to inaccuracies on both the online and batch calculations of the client transcripts.
- ❑ The Day Treatment tracking system underwent major enhancements to data collection, thereby providing treatment-related information to those who serve Missouri's at-risk youth.
- ❑ In cooperation with Office of State Courts Administrator, an automated transfer of Missouri State Criminal Charge Codes has been finalized. This has been incorporated not only in the DYS application areas but also assists in maintenance of the 80,000+ annual juvenile referrals maintained each year.
- ❑ A restructure was completed related to a youth's intake information including determinate sentence data thereby providing more specific information related to a youth's treatment.
- ❑ Currently several education application projects are underway designed to allow DYS to meet DESE standards while also allowing the capture and reporting of data designed to enhance the school programs and assist in the education of Missouri's at-risk youth.
- ❑ Began development of a facility database enhancement to be implemented February 2004. Facility information has been streamlined by consolidating the entry and storage of pertinent data in on record with immediate update capabilities. DYS will benefit by the timeliness of changes, control of changes and a reduction in IT costs.

### ***Common Area Application***

The Common Area Application identifies clients participating DSS program areas, uniquely identifying the client by assigning a Departmental Client Number (DCN). This allows for tracking of a client between the various systems, thus eliminating the need for looking up a different number for each system.

DSS Common Client juvenile information is provided on a weekly basis into the OSCA's MOJJIS system.

Completed the Limited English Proficiency Project in compliance with presidential executive order. The Common Area captures the language a client can proficiently speak, assisting DSS staff when communications take place.

### ***Personnel Application***

The Personnel Application was developed to provide around the clock access to worker information for other legacy applications' hotlines/help desks. ISTD supports the Human Resource Center (HRC) in providing reports from the Personnel Application and/or from the Office of Administration's SAMII HR application.

- ❑ In order to search for employees by last name, a new database record and online screen was built to assist the Budget and Finance staff, thus avoiding calls to Personnel staff to get employee information.
- ❑ Appointment data was added to existing records on the Personnel Application database. This was needed to assist the CA/N hotline staff to verify if a potential child abuse perpetrator is a state employee.
- ❑ To avoid audit-tracking problems, the Personnel Application was changed to take in all eight bytes, instead of only three bytes of the user ID.
- ❑ Personnel paper reports will be moved to MOBIUS to lesson the printing of paper, improve the timeliness of the reports, and increase the productivity of the payroll officers.
- ❑ Changes to the Personnel Application and existing reports to reflect the changes for FSD and Children's Division were made.

### ***Commitment Accounting Application***

The Commitment Accounting Application is an interface to SAMII Financial system. It aids in entering payments and recouplements into the SAMII Financial system.

Due to SAMII policy changes, the Commitment Accounting system was changed to ignore Inter-Agency Billings (IAB) documents.

### ***Cost Allocation Application***

The Cost Allocation Application aids ISTD with meeting federal requirements for equitable costing of its worked performed, minimizing the over or under recovery of ISTD's total budgeted costs.

During the 2003 year, enhancing the Cost Allocation System or converting to the SAMII Cost Allocation System was explored. The current system requires too many entities to load information into the database.

### ***System Component Impact Notice***

The manual notification of alerts to ISTD and key divisional staff has been replaced by an automated System Component Impact Notice (SCIN) application. This .NET Intranet application provides a structured method for staff to communicate critical information affecting systems and components.

### ***Family Support Division, Income Maintenance Time Study Implemented***

DSS replaced the paper-based and labor-intensive time study entry and reporting process with a new on-line time study application. This new web application (affecting approximately 2,300 caseworkers) eliminates the need to mail, complete and return paper communication to and from county caseworkers, thus saving time, paper, printer and

distribution resources. The application collects the input data into a central database, eliminating data entry and a lengthy process for compiling reports. Data collected is used to determine federal fund participation for various programs administered by DSS. This new system has greatly reduced staff time needed to record and calculate employee time.

In 2003, changes were made to clarify the usage of certain codes and validate a variety of email formats.

### ***Department of Social Services Public Website Redesign***

The DSS website was redesigned to include more useful information and navigation was changed to make it easier to locate information and be more visually appealing. Style sheets are used to incorporate formatting elements and ADA mandated changes. The public accesses an average of over 557,000 department web pages per month.

### ***Equipment and Network Upgrades Installed***

ISTD maintains a statewide telecommunications network and installs and upgrades computer equipment in county office facilities throughout the state. All of the activities listed below either saved the department money or allowed caseworkers to do their jobs more efficiently and effectively, resulting in better service to the citizens of the state. In 2003, the following activities were completed:

- ❑ Installed 1,235 new PCs and 388 network printers in FSD and Children's Division locations.
- ❑ Converted 17 sites from token-ring to Ethernet.
- ❑ Converted 70 MACSS PCs in prosecuting attorney offices to the new Outlook/Exchange e-mail system.
- ❑ Re-imaged 180 laptop PCs for deployment to on-call Children's Division caseworkers.
- ❑ Implemented a depot maintenance program to replace faulty PCs and printers. This self-maintenance has allowed ISTD to drop yearly maintenance contracts that totaled approximately \$600,000.
- ❑ Upgraded network bandwidth at 77% of the sites that were running on 56 Kbps circuits. All of these sites now have at least 256 Kbps circuits and should be able to handle the additional data traffic caused by new bandwidth intensive applications, e.g., web-based applications.
- ❑ Converted 9 hospitals housing FSD caseworkers from the DSS SNA network to the IP network. This allows the caseworkers to have the same functionality at the hospital as they would have at a county office. This added capability provides better and faster service to the clients in the hospitals.
- ❑ Migrated the department's Wide-Area Network to the frame-relay Network Transport contract and upgraded the bandwidth at many of the sites.

### ***Software Conversion / Upgrades***

Computer Associates' Enterprise Print Services product was replaced with McKinney Systems print software. The conversion of 2,625 DSS printers to the new software saved \$18,000 in 2003.

Officevision/MVS regions that are integrated into the MACSS application were moved onto a smaller mainframe processor saving monthly the software license fees.

### ***Distance Learning***

ISTD entered into an agreement with the MO National Guard (MoNG) to use their facilities and statewide network to train DSS employees. This agreement allowed training to take place at locations close to employees' home offices that resulted in lower travel and hotel expenses. In 2003, training sessions took place in St. Joseph, Springfield, West Plains, and Kirksville MONG facilities. The agreement also allows for use of MONG facilities for disaster recovery and continuity of operations for DSS offices.

### ***Mail Standardization***

The United States Postal Service (USPS) provides discounted postage rates for mail that complies with their established standards. With the large volume of mailings produced by DSS, it has been determined that substantial savings in postage can be obtained by ensuring that mailings comply with the USPS standards. In 2003, mailings that could take advantage of these discounted rates were identified and converted to the USPS standards.

## **Planned Projects**

### ***Automate On-line Transaction Request Form***

ISTD uses a paper form and a manual procedure for application teams to request assignment and setup of new on-line transaction codes. In 2004, this procedure will be replaced by developing and implementing a new paperless web-based application that will reduce processing time and improve ease of use.

### ***Automate Security Access Request Process***

DSS uses a paper form and a manual procedure for customers to request new, or changes to existing, user IDs or access. In 2004, this procedure will be replaced by developing and implementing a new paperless web-based application that will cut processing time in half while reducing errors and eliminating the need to store paper forms.

### ***Child Care Attendance System***

When childcare vendors report attendance information, they must complete a paper invoice and submit it to a FSD office where it is keyed into the system. In 2004, a web-based application will be developed and implemented to allow child care vendors to enter attendance information on-line through the Internet. This will reduce the number of mailings distributed by FSD and reduce overall processing time, while freeing up staff to work on more urgent issues.

### ***Health Insurance Portability and Accountability (HIPAA)***

The Health Insurance Portability and Accountability Act (HIPAA) provides for the standardization of electronic patient health, administrative and financial data while requiring the implementation of stringent privacy and security requirements. In 2004, a formal security awareness program will be implemented, the risk assessment will be completed and work on activities required to comply with the HIPAA Security Rule will begin.

### ***Incident Response***

In October 2003, the Office of Information Technology issued a policy directive for all state agencies to develop and implement an Incident Response Plan and Procedure. In 2004, a formal Incident Response Plan and Process for DSS will be developed and implemented.

### ***On-Line Reporting***

ISTD has a strategic goal to provide DSS staff with access to information. During 2004, the effort to convert paper-based reports to the on-line report distribution software will be continued. The use of WebFocus and Data Warehousing will be incorporated into the FAMIS Temporary Assistance and Youth Services systems.

### ***Self-Registration***

Applications that allow DSS clients to receive information through the Internet are being developed and the need has been identified for clients to be able to uniquely identify themselves so they can retrieve or submit more sensitive information. In 2004, self-registration software will be acquired and implemented so that clients can create their own unique user IDs and passwords on the Internet.

### ***Security Administration***

The Security Manual for DSS will be revised and published.

### ***Database Administration***

- ❑ Complete conversion of DB2 plans to packages for performance and ease of maintenance.
- ❑ Complete revisions to DB2 REORG jobs so that tables are only reorganized when needed.
- ❑ Improve ability to track and identify performance issues by developing and implementing an application to track CICS transactions and IDMS Performance Reports.
- ❑ Use Buffer Tuning tools to maintain and improve IDMS and DB2 performance.

### ***Statewide Automated Child Welfare Information System***

Automation of the Protocols for the CA/N hotline will greatly enhance the ability of hotline staff to process calls in a quantifiable efficient manner.



Continued planning and development of Case Management and the completion of Intake Management are scheduled to occur in 2004.

### ***Common Area Application***

DSS is working in cooperation with the Department of Health and Senior Services (DHSS) to update newborns with Social Security Numbers as DHSS receives the information from the Social Security Administration. This enhancement will reduce the number of duplicate DCNs within the Common Area and also decrease the number of Social Security applications clients must fill out to apply for assistance.

### ***Adoption Subsidy Program***

Legislative Oversight Review of Adoption Subsidy program requires development of system to handle child specific contracts, sibling relationships and development of automated payment matrix to facility provider payments.

### ***Media/Press Release Application***

An application is planned for delivery in 2004 to provide a method to communicate departmental press releases to media/news contacts across the State of Missouri. This .NET application will broadcast information via discussion lists and will utilize network fax services to media contacts that do not have access to the Internet. A subscription method for citizens to sign-up to receive press releases will also be available.

### ***DSS Internet Address Inquiry***

An application is planned for 2004 that will allow citizens accessing the DSS Internet website a one-stop access point for information on services provided by the department.

### ***Project Management Web Application***

An application to allow ISTD management staff to view project documentation and reports is planned for 2004.

### ***DSS Public Website Restructure***

The DSS Internet website will be enhanced to reflect the department's restructure of FSD and Children's Division. Redirection pages will be implemented to facilitate the flow of information from the old structure to the new.

### ***Intranet Content Publishing***

DSS will continue to maintain as well as add new content to the department's Intranet to provide more information to DSS employees. A significant project, the DYS Manual, will be available to DYS staff in calendar year 2004. The online manual will eliminate the need to print and distribute paper manuals saving much needed resources. This will also assist in staff productivity by having the most up-to-date manuals available in one location.

### ***Electronic Benefits Transfer (EBT)/Direct Deposit***

FSD is investigating the possibility of adding FSD Transportation Reimbursement Expense (TRE) payments to the Temporary Assistance client's EBT card. System modifications will be necessary to accommodate these payments.

### ***Family Assistance Management Information System (FAMIS)***

Development for the next phase of FAMIS, Temporary Assistance, will continue and scheduled to begin by September 2004, followed by statewide implementation by December 2004. This will add another 40,000 eligibility units to FAMIS. This will provide a more integrated system for the workers so they can complete Child Care, Food Stamp, and Temporary Assistance applications at the same time by entering the data into one system, thereby providing quicker eligibility determinations for the clients.

### ***Duplicate Auto Withdrawal***

With the advent of the Spenddown, CHIP, and MAWD programs, it became necessary to have a means to automatically withdraw funds for payment of premiums. By using the existing Direct Deposit system, implementation was relatively easy. The Direct Deposit system will automatically deposit payments for all existing participation. Participation in multiple cases for auto withdrawal of funds has caused the need to allow the client to elect to participate since Spenddown premium payment is not mandatory each month. (Spenddown clients can present bills to meet their spenddown premium obligation for months of their choosing.) An enhancement to the existing system is needed to identify clients that elect to have funds automatically withdrawn from bank accounts.

### ***Family Support Division Interface with Department of Labor and Industrial Relations***

FSD Income Maintenance System will require reinstatement of the daily and quarterly wage data exchange with the Division of Employment Security. Earned and unearned wage information will need to be electronically transferred and reported to the state and county workers to aid in the eligibility process for FSD clients.

### ***Medical Assistance Spenddown Enhancements***

Enhancements to the Medical Assistance Spenddown System will be implemented to reduce the amount of manual intervention required for processing prior quarter Medicaid coverage. The current system does not have a method of keeping history of monthly spenddown amounts. Spenddown history becomes especially useful for cases where the recipient chooses to pay a premium rather than submitting medical bills to meet spenddown.

### ***Interface with Verizon's Recipient Services and PSI -- Automated Mailing Address Updates***

Public assistance recipients tend to have more contact with the Medicaid Recipient Services Unit and the managed care enrollment broker (PSI) than they do with their caseworker. As a result, these contracting organizations often become aware of address changes for recipients before it is reported to FSD. Verizon and PSI provide a list of

address change reports to FSD, but several days may pass before caseworkers receive the information. When mailing addresses are not updated timely in FSD's system, the result is an inordinate amount of returned mail that translates into higher postage expense.

To reduce returned mail rates, an interface will be developed for address changes reported to Verizon and PSI to be transmitted to the DSS computer system. The address will be programmatically updated and an email will be sent FSD county staff advising them of address changes. Addresses will be automatically updated in one day, whereas the current manual process takes about a week.

### ***Personnel Application***

HRC has requested approximately nine additional reports from the Personnel application and/or from SAMII warehouse. An effort continues to move Personnel paper reports to MOBIUS. Two new online screens will be created to view pay rate data and employee tenure data.

### ***Commitment Accounting***

With streamlining of the workflow between the divisions, the interface portion of the Commitment Accounting System will no longer be needed. This interface with SAMII is scheduled for shut down by June 2004.

### ***Cost Allocation Application***

ISTD will incorporate the loading of State Data Center (SDC) billing data into the Cost Allocation system and phase out some of the entities loading information into the database.

### ***Tracking Purchase Order/Warrant Request Data***

A web-enabled application to collect and report pending purchase order and warrant requests is planned for 2004.

### ***Prince Hall Family Support Center (PHFSC)***

In 2004 the client tracking/referral system will be enhanced to expand use to other state agencies and not-for-profit service providers that offer services at PHFSC.

### ***Equipment Installations/Network Upgrades/Software Removal***

DSS provides network connectivity to approximately 250 locations throughout the State of Missouri. The 8 remaining token-ring sites will be converted to Ethernet. Depending on availability of funds, a certain number of new personal computers will be purchased to replace outdated ones. ISTD will complete the installation of 760 printers that were purchased in 2003. Network bandwidth at the remaining sixteen 56 Kbps sites will be upgraded to a minimum of 256 Kbps. ISTD will continue converting approximately 20 hospitals housing FSD caseworkers to the DSS IP network. Also, depending on availability of funds, work will continue with Sprint to create an alternate network concentration point at another Jefferson City site for network disaster recovery purposes. Once all DSS employees are converted to Outlook/Exchange and the Division of Legal

Services gives approval to uninstall OfficeVision/MVS, there will be significant monthly savings.

### ***Satellite Communications***

ISTD will be involved in a pilot to test satellite communications as a possible alternative to high cost, frame-relay data circuits in remote areas of the state. If the testing is successful, a contract will be awarded and it is anticipated that monthly circuit cost savings could be \$200 to \$300 per site. DSS has approximately 20 sites that are good candidates for this type of connection.

### ***Missouri Alliance/CMO Payments***

In April 2003 Children's Division requested we develop a process to systematically submit Medicaid claims for services provided by the care management organization, Missouri Alliance, in order to draw down the federal match on claims retroactive to April 2002. Edits were incorporated to validate a child was in Children's Division custody on date of claim. Monthly claims amount to approximately \$750,000. Procedures are completed and anticipate claim submissions will be current by March 2004.

### ***Parent/Sibling Tracking***

No mechanism was in place to retain sibling relationship after placements were made in different households. System is designed and currently in development stage to track birth parent and siblings. Implementation is expected in spring 2004.

### ***Interface with SSA***

Automate the data acquisition of financial income for children in the Alternative Care System. Income sources include 'interest payments' and 'child support payments' that each SSI child receives.

## **Accumulated Demand**

### ***Medicare Pharmacy Bill***

CMS (Centers of Medicare and Medicaid Services) clients enrolled in the Pharmacy program are allowed to obtain pharmacy drugs through Medicare. A database to house the information on clients enrolled in the Pharmacy program needs to be developed. A system to prevent the payment of pharmacy claims by the state needs to be developed.

### ***Missouri Automated Child Support System (MACSS)***

As of December 2004, a total of 145 change requests have been identified by the program agency for possible enhancement/revision of MACSS. New federal regulations proposed, if adopted, will further change child support payment distributions and system accounting structure.

### ***Family Assistance Management Information System (FAMIS)***

ISTD assumed responsibility for maintaining the FAMIS Resource Directory and Child Care system in November 2001. With implementation of the food stamp component in 2003, state staff and contract staff are working together on production support. When the state assumes complete responsibility for FAMIS maintenance, additional staff will be necessary to support the system.

The next phase of FAMIS, Temporary Assistance (TA), is planned for statewide implementation in 2004. The final phase for Medicaid eligibility will be developed following TA implementation. Analysis, coding and unit testing will be completed in 2005, with pilot and implementation during 2006.

### ***Cost Allocation Application***

With the budget crisis taking place, the Department Support Team monitors the cost information and detailed billing data, to identify areas of high costs, increased costs, etc. so that ISTD can focus their efforts for lowering costs in those areas. If funding is available, the Cost Allocation IDMS database will be converted to DB2.

### ***Commitment Accounting Application***

If funding is available, the Commitment Accounting IDMS database will be converted to DB2.

### ***Personnel Application***

A service request for restructuring the training portion of the Personnel database and interfacing the data with SAMII has been placed on backlog due the priority of the reports program and the workload of other legacy application service requests. The project is estimated to take six months. It will reduce the redundancy of data and reduce the time staff spends keying in the data. If funding is available, the database will be converted from IDMS to DB2.

### ***Common Area Application***

ISTD must make preparations for a Common Area restructure since DCN numbers will run out in an estimated time of three to five years. The restructure project is anticipated to surpass the amount of work put forth for the Y2K project.

If funding is available, the Common Area IDMS database will be converted to DB2 during the restructure project.

To avoid audit-tracking problems, the Common Area needs to expand the user ID fields to take in all eight bytes instead of only three bytes.

### ***Internet/Intranet Processes***

Demand exists to provide greater protection to network resources from computer viruses and to be able to detect their existence before they spread. Resources are needed to purchase and implement an intrusion detection system.

<b><i>General Department Profile (2003)</i></b>		
Department Name		
<i>Department of Social Services</i>		
Street Address	City	Zip
<i>221 West High Street</i>	<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL
<i>573-751-4815</i>	<i>573-751-3202</i>	<i>www.dss.mo.gov</i>
Department Director		
<i>Steve Roling</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>8,850</i>	<i>2,500,000</i>	
Agency Mission (brief statement)		
<i>Coordinate programs to provide public assistance to children and their parents, access to health care, child support enforcement assistance, and specialized assistance to troubled youth.</i>		

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Department of Social Services</i>		
Department CIO Name		
<i>Steven E. Adams</i>		
Street Address	City	Zip
<i>313 West McCarty Street</i>	<i>Jefferson City</i>	<i>65101</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>573-751-4435</i>	<i>573-751-0412</i>	<a href="mailto:Steven.E.Adams@dss.mo.gov">Steven.E.Adams@dss.mo.gov</a>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
<i>American Public Human Services Association-Information Systems Management – State Representative</i>		
IT Division Name		Website URL
<i>Information Services and Technology Division</i>		<a href="http://www.dss.mo.gov/ist/index.htm">www.dss.mo.gov/ist/index.htm</a>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>175</i>	<i>0</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$ 0</i>	<i>\$ 0</i>	
Security Officer Name	Phone No.	E-mail
<i>Dan Green</i>	<i>573-751-4198</i>	<a href="mailto:Danny.J.Green@dss.mo.gov">Danny.J.Green@dss.mo.gov</a>
Privacy Officer Name	Phone No.	E-mail
<i>Harry Williams</i>	<i>573-751-3229</i>	<a href="mailto:Harry.D.Williams@dss.mo.gov">Harry.D.Williams@dss.mo.gov</a>
ITAB Alternate Name	Phone No.	E-mail
<i>Augie Buechter</i>	<i>573-751-4435</i>	<a href="mailto:August.D.Buechter@dss.mo.gov">August.D.Buechter@dss.mo.gov</a>
SDC Steering Committee Rep Name	Phone No.	E-mail
<i>Steve Adams</i>	<i>573-751-4435</i>	<a href="mailto:Steven.E.Adams@dss.mo.gov">Steven.E.Adams@dss.mo.gov</a>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Department of Social Services</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>IBM2084-306 with OS/390, UNIX System Services</i>
PC Servers	<i>IBM, Compaq, Dell, Perpetual Systems</i>
Mid-range	
Networked	<i>All of the above</i>
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Windows 98, 2000, and NT</i>
Dumb terminal	<i>3270</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP, SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Dedicated via SDC and MOREnet, dial-up via MOREnet</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MOREnet</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Pix 515R Firewall</i>
Desktop	<i>Norton Antivirus</i>
Internet	<i>Provided and managed by State Data Center</i>
Help Desk Packages (Magic, GWI)	
<i>GWI</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>IDMS, DB2</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, CICS, Advantage:Gen</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange, Lotus Notes, OfficeVision</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>Available via network hardware – DES, 3DES, SSH, SSL, MPPE</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	



Telecommunications (T1, Frame Relay, etc.)
<i>T1, Fractional T1, Frame Relay, ISDN, Analog</i>

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Office of the State Courts Administrator

#### **Accomplishments**

##### ***The Statewide Judicial Information Network***

The statewide network linking all Missouri courts remains as the successful backbone of the Missouri Court Automation Program. Due to its success, there has been an increasing traffic load on the network, causing the Office of State Courts Administrator to begin replacing many of the phone lines with fiber connections to efficiently support increased information loads. Although perceived as an initial increase in cost, these new connections continue to reduce the need for the Department of Social Services and the Missouri State Highway Patrol, which share the network, to establish parallel systems. This results in a significant overall cost reduction at the state level. Additionally, these new connections improve service by providing increased capacity and speed with significantly reduced down time. A reduction in down time is noteworthy in this age of viruses and communications failures. For example, this year when the Blaster and Nachi viruses hit the state, several departments were removed from the state network or taken down altogether to repair the damage. The SJIN, however, remained up and connected the whole time. Only individual machines were taken down and repaired as needed.

##### ***Infrastructure***

While the initial infrastructure for Missouri courts was completed in 2001, maintenance of our established framework is what allows all of our other technology projects to occur. This year we provided courts with a more current and secure Operating System by taking the remainder of our courts in a Windows 95 environment to a Windows 2000 environment. Having all of our courts in a standardized infrastructure environment reduces our development and implementation costs because each location operates similarly. As we moved to the new operating system, that standard approach allowed us to successfully maintain an intact infrastructure, in compliance with standards, while adding additional users and applications. It also allowed us to add some selective wireless capabilities and host three Mobile Training Labs that helped us reduce our costs associated with training, while maintaining the ability to offer hands-on training. These training labs represent a “network in a box” with no additional wiring or special lab set up to host training classes anywhere in the state. The use of Web Based Training is also

enabled by the use of standard applications and a secure home on the statewide judicial network.

### ***Court Management System***

In partnership, Missouri court staff and Office of State Courts Administrator staff **continued rollout of the statewide case management system** within the confines of a reduced budget. This calendar year, 10 courts implemented the software. While over half of the state is now able to use the software and reap the benefits of the system, there are many courts still in need of the software. Depending on the funding available, OSCA is hopeful that they will be able to continue rollout of this system. They are already working with St. Louis County to bring their Probate Division on in the coming year. For those courts already using the statewide case management system, this year marked the completion of the first phase of major upgrades since users met to prioritize their requests for changes two years ago. With this upgrade, came the technical ability for these automated courts to electronically transfer Adult Protection Orders to law enforcement, providing increased protection for officers and victims of abuse. This upgrade was completed in the circuit courts in March and in the appellate courts in April.

Last year, the juvenile courts were able to begin using the statewide case management system to streamline their work processes and expand their ability to track juvenile offenders in our state. This year, **thanks to federal grant funds, 11 juvenile offices were added to the case management system**. Due to the number of agencies that provide services to juvenile offenders and the transient nature of most offenders, automation is key to the ability to track the children and the services being offered to them. Automation of this information has allowed Missouri to start a justice information sharing project called the Statewide Juvenile Justice Information System (SWJJIS) which allows all agencies providing service to juveniles the ability to see what services are being provided by courts and similar agencies. This expansion of service to children should empower service providers to continue treatment of a child that moves to their area, and track services outside one agency that have been provided by a different one to reduce cost and duplication.

Another aspect of courts that is more easily managed using automated tools is the selection and service of a jury. Missouri is using a **jury management system** that complemented its case management system and while the majority of installations were completed in 2002, this year the final courts were trained and began using this system.

### ***Case.Net***

Excitement and expectation about the OSCA developed software, Case.Net, has continued to grow this year. Attorneys, litigants and the Missouri public routinely use Case.Net to search for public case information using name, case number or filing date without making a trip to the courthouse or having to wait for a clerk to be able to assist them by looking up or printing a file. System users can even perform a statewide search for information about a person. Missouri attorneys can follow cases they are involved in online by typing in their Missouri Bar Number. Additionally, all system users are able to

view the court calendars of judges and commissioners. A branch of the system allows the juvenile officers to search for information about the children they serve by entering an additional layer of security and accessing “Secure Case.Net” to view their client’s information. Case.net is the most widely recognized automation feature of the courts. It is also the one element that we receive increasing public request for. For court information to post on Case.Net, a court must first be using the statewide case management system. With approximately half of the state not yet posting to Case.Net, OSCA is receiving almost daily requests from the public asking why certain counties are not yet showing their information. Public reliance on this service continues to grow and we continue to strengthen the system to handle increased demand.

## Planned Projects

- ❑ With continued funding, rollout of the statewide **case management system** will continue. Over half of the Missouri court caseload is now handled by this system.
- ❑ Continued addition of the **Juvenile Offices** to the case management system is planned if grant and state funding remain available.
- ❑ As a result of user evaluation sessions, a planned upgrade of the JIS case management system began this year. With continued funding, **phase two of this upgrade** will begin in 2004. Phase two incorporates more complex changes, and is highly anticipated by current users as it will simplify the software in significant business process areas such as accounting and criminal disposition.
- ❑ An **electronic filing** system is a top business need for both courts and their clientele. Prior to implementing an electronic filing solution, however, the technology must be able to support an intake of information without a need for double entry on the part of clerks, and without breaching any security firewalls for those attempting to submit information. Emerging XML standards, which we are watching closely, may provide the needed technology foundation to support electronic filing. However, with tight budgets continuing, this project will likely be moved into out years.
- ❑ **Document management** is a highly complex subject that incorporates traditional retention and disposal of records, electronic and photographic imaging of records, the flow of documents through business processes, and the creation storage, retrieval, access and security of documents. With funding, OSCA-IT will establish the scope and business requirements for a document management system to support the core business activities of courts and identify “best practices” to manage the massive records burden currently facing courts. Tight budgets will likely postpone progress on this project again in the coming year.

## **Accumulated Demand**

The Missouri Court Automation Program has significantly changed the way that Missouri Courts do business. The family of automated systems must continue to be supported now that they have become a part of the business culture of the courts and have set an expectation of what services courts will be able to provide to Missouri citizens and other state agencies in the future.

Shrinking budgets and lacking resources present a series of unique challenges for the Missouri Court Automation Program. There is a need to balance a requirement for specialized staff, an increasing demand for new technology solutions and timely assistance with IT support. We are also faced with retaining qualified IT staff in the government sector while resources are slim.

Just less than half of the state courts are still waiting to receive the statewide case management system. In addition, courts that are currently using JIS will be ready to complete phase two of the upgrade process, making the system more useful and compatible with Missouri court processes. Juvenile courts are now ready to be incorporated in the case management system and begin automating their processes and better managing their increasing caseloads. The program will soon be at a stage where both electronic filing and document management will become increasingly critical to courts.

Information technology solutions have helped the Judiciary improve service, increase its ability to share public information and improve its statistical reporting tools. However, technology must continue to be supported in order to continue its effectiveness.

### ***Agency Profile***

As a member of the judicial branch of government, a department profile was unavailable from the Office of the State Courts Administrator.

# *Office of Information Technology*

## 2003 State of the State IT Report

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### Department of Transportation

#### **Overview**

MoDOT's information technology efforts in 2003 could be characterized with the same phrase that makes up one of MoDOT's three strategic plan slogans: "Take Better Care of What We Have". Over the course of the year, budget and staffing constraints narrowed the focus of IT projects to primarily incremental enhancements of existing systems and routine replacement of older technology. Notwithstanding the lack of major new systems projects, Information Systems did make some progress into maturing some fundamental IT processes that were needing improvement, and adopting standards in some key areas such as Systems Development Life Cycle (SDLC). Two other areas that received a substantial amount of attention in 2003 were Project Management and Enterprise Architecture.

When MoDOT began developing and reporting performance-based metrics as part of the departmental business plan, Information Systems adopted a set of metrics based upon project management. For every IT project started after July, 2003 a set of four measurements: On Time, On Budget, On Function, and On Availability are taken quarterly and rolled up into a single value called "On Target". The sum of On Target values for all IS projects is the single metric by which IS performance is measured and reported in the departmental scorecard.

MoDOT also made big inroads into its Enterprise Architecture in 2003. In addition to finishing up the architecture manual and adopting the governance, vitality, review, and other processes that accompany an enterprise architecture effort, MoDOT kicked off several business and technical architecture segment projects that provide an important foundation for upcoming IT systems projects in 2004. MoDOT's goal is to complete any necessary architecture projects before embarking on a systems project, so that the business processes, migration strategies, and IT technical standards are all adopted prior to any development work on a major system.

One other area that Information Systems is pursuing is the recognition and adoption of the SEI Capability Maturity Model (CMM) in the area of Applications Technology. Information Systems' goal is to have its Applications Technology processes and methodologies raised to maturity level two (Repeatable) by the end of FY04.

## Accomplishments

MoDOT's core program is the planning, design, construction, operation, and maintenance of Missouri's transportation system. MoDOT's largest automated software application is one that supports certain parts of the planning and maintenance functions of the core program. It keeps track of the numerous roadway features that comprise the transportation system, their current condition, and other relevant data to assist in the planning and maintenance functions. Called the Transportation Management System, this in-house developed system continues to be enhanced to provide more up-to-date information, expand its capabilities to display digital images, and to make it easier to operate and maintain.

Another suite of core program applications collectively called TRNS\*PORT, were also updated during the year. These applications provide major automation support for the construction functions, including the estimation and award of construction contracts to potential bidders. Other parts of the core program, particularly in the planning and operation functions, are being reviewed to significantly improve or replace the existing applications with more capable and flexible systems that integrate with other core applications and financial systems.

### ***Transportation Management System (TMS)***

The Transportation Management System is an ongoing project that was implemented in March 1999. TMS integrates geographically oriented transportation data from multiple sources such as bridge, pavement, safety, traffic monitoring, traffic congestion, outdoor advertising (billboards), junkyards and travel-ways. TMS allows MoDOT staff to graphically view and analyze data to make better decisions concerning preservation and construction of transportation systems. TMS is based upon a common location referencing system (LRS) that utilizes software to link graphical information to tabular information through the use of relational databases. Several enhancements to the modules within TMS were completed this year and are described below.

The Location Referencing System (LRS), which is the main underlying component of TMS, was rewritten to reduce maintenance costs, provide for or enable additional functionality and significantly reduce the time required for making updates to the GIS coverage within the system.

Enhancements to the State Traffic Accident Reporting System (STARS) were completed to accommodate commercial vehicle requirements. These enhancements were completed in conjunction with the Missouri State Highway Patrol (MSHP). The STARS system allows the MSHP to enter accident data directly into MoDOT's Safety Management System. The MSHP has access to the transactional and analysis databases to meet their business needs and to create statistical reports.

Highway Capacity Software (HCS 2000) was implemented and integrated with TMS for use by the Design and Planning Divisions. This software allows quick and easy access to

highway capacity data to aid in modifying current travel-ways or in designing new travel-ways.

Approximately 100 reports have either been modified or created to enable TMS users to do their business more effectively. In addition, the Missouri Department of Revenue now has access to TMS data - specifically, the accident report images - to assist them in their business processes.

### ***Site Manager and TRNS\*PORT Upgrade***

Version upgrades of the department's Proposal and Estimating, Letting and Award, Decision Support System and Site Manager applications were installed this year. These systems were developed through a joint effort of many different states under the direction of the American Association of State Highway and Transportation Officials (AASHTO). Due to the costs of the systems being shared among many states, the overall expense to MoDOT is significantly reduced. The upgrades applied this past year resolved over 100 known errors and included 14 minor enhancements. Correction of these errors removed potential impacts to contractor payments and other key functions of the systems. In conjunction with the software upgrades, the systems were migrated to Windows 2000 operating system on new servers. These infrastructure upgrades helped to complete the Department's overall conversion to Windows 2000 and insured continuing support from AASHTO by eliminating the use of Windows NT.

### ***Motor Carrier Systems Consolidation:***

In accordance with the Governor's executive order, all Motor Carrier Services were consolidated under MoDOT in 2003. Functional requirements for an integrated computer system to replace the antiquated, non-integrated Motor Carrier computer systems were gathered and documented. An RFP was issued and the successful bidder will be selected in early 2004. Implementation of the system will be done in two phases and will include: Overweight/Over-dimension Permitting, Interstate Fuel Tax Authority, IRP, SSRS, Interstate Exempt/Intrastate Regulatory and Enforcement modules. The system will allow motor carriers to conduct business over the Internet.

### ***ARAN Server Storage Upgrade***

MoDOT's Automated Roadway Analyzer (ARAN) van scans and collects a large volume of roadway data while being driven over the state's highways. Until two years ago, the video portion of this data was stored primarily on VHS tape. At that time MoDOT's Transportation Management Systems group purchased a new van with digital video and instrumentation capability. When the volume of video and other data outgrew the capacity of the digital storage servers purchased with the van, IS worked with the TMS unit to size a new storage system to handle the growing volume of data. The solution was to incorporate the ARAN data into MoDOT's Storage Area Network, giving TMS room to grow as needed.



## **Accomplishments – Web Applications**

MoDOT placed an emphasis on web sites and web applications in 2003. In addition to a complete makeover of its main web site, work was done to the St. Louis Intelligent Transportation System site, [www.gatewayguide.com](http://www.gatewayguide.com) to add real-time video camera images. The district sites are also being worked on to incorporate the new look and feel of the main site into their pages. Information Systems upgraded its static web page development software from FrontPage to DreamWeaver and Flash.

Building new Web applications and web-enabling legacy applications were also a theme for 2003, which will continue into 2004. Using some newly acquired Java development tools in the IBM WebSphere family of products, Information Systems built several small web applications as a start, and is also investigating the use of portal software for other types of applications.

### ***MoDOT External Web Site***

MoDOT rolled out a new and improved web site to the public on June 2, 2003. This project provided a more user-friendly, interactive and informative web site that contains timely and accurate information about MoDOT's current and proposed activities. As part of the improved site, a new look and feel, easier navigation, less complex site structure and feedback tools were all incorporated.

### ***Work Zone and Road Conditions***

A new internet-based web application was implemented on MoDOT's web site to provide current Work Zone information in both graphical and tabular formats to the public. The old Road Conditions application was also given a significant face-lift and is now available at [www.modot.org](http://www.modot.org). Internal applications were also implemented to allow for the automated entry of current Work Zone and Road Condition data to ensure accurate and timely information could be fed to the web site.

### ***Internet Map Server and Spatial Database Engine***

An Internet Map Server (IMS) was implemented to provide MoDOT the ability to display maps and other geographical data on the Department's external and internal web sites. A Spatial Database Engine (SDE) is also in the final stages of implementation and when in production will provide both internal users and the public quicker access and improved performance to retrieve and view MoDOT's maps and related geographical data.

## **Accomplishments – Support Applications**

MoDOT has a number of software applications that not only integrate with and support the core program applications, they also enable the support organizations themselves to work more efficiently and effectively. Information Systems generally applies some level

of upgrade or enhancement to these applications on an annual basis, so that an adequate level of operational efficiency is maintained.

### ***Fleet Management System***

MoDOT's Fleet system was implemented in November 1997 and has been instrumental in tracking specific information regarding MoDOT's fleet. Warranty, service, repair, inspection and usage information is entered into the Fleet system from locations across the state providing up-to-date information to aid MoDOT in managing its fleet of vehicles. Earlier this fall, MoDOT began the process of web-enabling the Fleet system. Doing so will reduce support and implementation costs as well as provide a new user-friendly web-based interface. In addition, the Office of Administration has embarked on an effort to consolidate the state equipment information into a central database to help the state collectively manage its resources better. MoDOT reports data about its fleet to OA on a monthly basis by generating reports from the Fleet Management system.

### ***Fuel Card***

MoDOT General Services is now using credit cards to purchase gasoline for MoDOT's fleet vehicles. MoDOT Information Systems has automated both the validation and payment processes. Cost and usage information is loaded into MoDOT's Financial Data Mart and is used for reporting purposes. The implementation of fuel cards is expected to result in cost savings on both fuel and fuel storage. The system also provides valuable data to aid in managing MoDOT's fleet of vehicles.

### ***Job Application Monitor***

This new web-based application was created by internal staff using a newly-acquired Java-based development tool. The system allows the department to more efficiently track the number of specific details about applicants who submit job applications to MoDOT. The department's Equal Opportunity office uses the application and it aids MoDOT in maintaining data on minority and women applicants. This data is used to deliver more accurate reports to various human rights organizations, the Federal Highway Administration (FHWA), the Office of Administration, various other state agencies and the public.

### ***Magic Service Desk***

The Magic Service Desk application is used to track information technology help desk call requests and provides the Information Systems unit the ability to easily track and respond to IT problems or requests. The web-based intranet system was implemented in April 2003 and is currently in use by all Information Systems and related support staff located throughout the state. Magic Service Desk replaced an obsolete application that was no longer supported by the vendor. A second phase is being planned to implement e-mail notification, paging and problem escalation capabilities.

## **Accomplishments – Security**

MoDOT continues to invest in technology that protects its information assets against the ever-increasing sophistication of network-based attacks. Information Systems staff has increased its knowledge and awareness of security threats through the pursuit of tighter security measures for the IT infrastructure and through its response to the several worm and virus attacks of 2003. Along with the increased knowledge of viable security tactics comes the understanding of the need for a comprehensive, over-arching security plan with effective strategies and procedures for staff to follow. MoDOT's IS staff will be developing a cybersecurity plan and implementing additional procedures throughout the coming year.

### ***Cyber Security***

Recent virus and worm attacks have heightened the need for better defense of our information assets. To this end MoDOT has installed Network Intrusion Detection hardware and software that issues alerts when suspicious network activity occurs. Such activity may turn out to be innocuous or it may indicate a malicious attack, either by an internal or remote individual or system, or by a worm or virus. For all such events, the Intrusion Detection System provides early warning and allows IS staff to react accordingly. The system also pinpoints the location in the network where a machine may be infected with a worm or virus, allowing quick isolation and cleansing.

We are now investigating behavior-based systems that detect not only known worms or viruses but also software based behaviors that are known to be the underlying basis of most attacks. Thus, we could have a defense against new, unknown viruses for which even the Anti Virus solution manufacturers have not yet prepared an answer.

### ***Anti-Virus Upgrade***

Upgrading its existing McAfee product enhanced MoDOT's defense against viruses and worms. The upgrade enabled faster response to impending virus attacks and eased the day-to-day management tasks needed to maintain currency.

### ***MEROC platforms***

IS implemented laptops and a server in this mobile emergency command center, enabling instant access to bridge and roadway rating data, as well as other data, to enable timely decision making in the event of a statewide emergency.

## **Accomplishments – Enterprise Architecture**

MoDOT began its enterprise architecture efforts in earnest in 2002, and began to realize the fruits of those efforts in 2003. This year the new Adaptive Enterprise Architecture framework was completed and documented in an Enterprise Architecture Manual. Based upon the statewide Missouri Adaptive Enterprise Architecture and the Zachman model, MoDOT's framework covers both business and technical architecture segments. Systems

Architect from Popkin, Inc. was selected as the repository and reporting tool for recording all architecture information, and it was configured during installation to accommodate MoDOT's architectural framework. The tool allows easy creation of graphical representations of the Architecture for segments that are current or planned in the future.

To carry out the governance, review, and vitality processes an Architecture Review Board composed of MoDOT business executives is being established, and they will begin to exercise their responsibilities in early 2004. The final part of the framework-the overarching set of business drivers for the business and technical segments-is being documented and is expected to be completed in the first quarter of 2004.

MoDOT's enterprise architecture was implemented to complement the Missouri Adaptive Enterprise Architecture (MAEA) and the two efforts have already begun to show benefits from the collaboration and synergy that exists between them. In addition to sharing domain structures, definitions, and compliance standards, the two are sharing research, best practices, and technology trends in the disciplinary fields that they are both engaged in. As the statewide MAEA begins to pursue business architecture, additional synergies will be realized between the two enterprise efforts.

### ***Architecture Repository***

System Architect® is a comprehensive and powerful modeling solution designed to provide all of the tools necessary for development of successful enterprise systems. System Architect is an integrated, industry-leading tool that provides support for all major areas of modeling, including business modeling, object-oriented and relational data modeling, network architecture design, and structured analysis and design. Information Systems began using System Architect® in 2003 and it currently stores all the business and technical models and documentation that has been undertaken.

### ***Transportation Project (Business Segment)***

As part of the preparatory work toward development of a comprehensive Transportation Program Management System, a study of the business architecture segment involving transportation projects was initiated. Working through the entire life cycle of a transportation project, the current processes were identified, then the desired processes, then the migration strategies to get from the current state to the desired state. Once a migration strategy is selected from among those that were defined, the second phase of the project to develop a Program Management System will be initiated.

### ***Customer Transaction (Business Segment)***

As part of an effort to improve the department's ability to process incoming customer inquiries, correspondence, and requests, a study of the business architecture segment involving customer transactions is underway. In a process similar to the Transportation Project business architecture segment, the study will investigate the various business processes involved in servicing customer calls, requests, etc., as it is done today and how it should be done in the future. Migration strategies will then be developed and one will

be chosen, after which a project will be initiated to implement the selected strategy. The project is presently in the phase of documenting the current business practices.

### ***Application Development Management Tools (Technology Segment)***

The first technology segments to be incorporated into the new enterprise framework were two that were placed under a new domain called Methodology. The first of these segments documented the discipline called Application Development Management Tools, which covers the System Development Life Cycle (SDLC) methodology used by Information Systems technologists, and the various tools they use to build IT solutions. In 2003 IS adopted a slightly modified form of the Rational Unified Process, a type of SDLC that has become a de facto industry standard, along with a set of artifacts that were specifically selected to complement the IS development tools. Other management tools that were documented as new standards were those for static web page development, Extract, Transform and Load functions, web portal design, and Java development tools. A future task for IS developers is to actively sunset older technology-based tools in this category to reduce support and maintenance costs and to stay viable with the changing landscape of application development.

### ***Project Management (Technology Segment)***

A second technology architecture discipline in the Methodology domain was completed in 2003. As part of an increasing emphasis on IT project management, Information Systems standardized its project management processes and documented them as part of the enterprise technical architecture. The standards adopted were drawn from best practices and industry trends from the Project Management Institute, federal and state governments, and existing IS processes. Templates for the various artifacts associated with project management were also developed and documented in the architecture repository. In order to institutionalize the new processes, a project is underway to develop a project management handbook and subsequent training course for all IS developers.

### ***Geographic Information Technology (Technology Segment)***

As a preliminary step in the development of automated support for certain Transportation Operations functions, development of two Technology Areas within the Geographic Information Technology (GIT) Discipline were started in 2003 to set standards for the upcoming web-based systems to utilize. Building upon the ongoing statewide efforts in the GIT Discipline, MoDOT's technical architecture teams began developing the transportation-specific parts of the Internet Mapping Service and the Geospatial Data Development Standards Technology Areas in more detail. Since the transportation data layers were not being actively pursued by the Missouri Adaptive Enterprise Architecture (MAEA) teams in that level of detail, MoDOT's work will provide unexpected benefits to the statewide effort, as will the MAEA's work provide additional benefits to MoDOT. This is another example showing the synergy and benefit of agency and statewide collaboration within the enterprise architecture area.

## **Accomplishments – System Upgrades**

Every year Information Systems applies upgrades to shared use (infrastructure) systems and computer networks to keep MoDOT staff more efficient and productive. Some of the upgrades are necessary to insure support is available from vendors; others are needed because the systems have become expensive to maintain; still others are necessary for the additional functionality that was not available with the older versions. Following is a list of the more significant upgrades that were applied during 2003.

### ***Windows 2000 Server Consolidation***

MoDOT continued to consolidate its Intel Server infrastructure by decommissioning six-year-old Compaq servers in District offices and GHQ and installing fewer but more powerful servers in GHQ. When totally completed in early CY2004, most District offices will have but one Intel server and no backup equipment. District users will access most resources via the MoDOT fiber-based WAN.

### ***RightFax Upgrade***

MoDOT's online fax system was enhanced and expanded by upgrading its RightFax solution. All users MoDOT-wide can send and receive faxes via either email or a virtual printer. More phone lines were put in place and a faster server was used during the upgrade so that response time for faxing activities, critical to our Permits and Motor Carrier groups, was greatly reduced.

### ***Windows NT to 2000 Conversion***

MoDOT's population of PCs and Laptops are now running Microsoft's Windows 2000 operating system. This platform has proved to be much more stable than Windows NT, thereby increasing the productivity of users and decreasing the occurrence of help desk calls. When Directory Services is added in early 2004, new function, such as the ability to quickly locate preferred printers, will be available to users.

### ***Design Workstations Replacement***

MoDOT's highway and bridge designers use specialized software, such as Computer Aided Design and Drafting (CADD) in their work. The graphic tools require robust hardware to operate properly. All design workstations were replaced this year with PCs that have faster processors and more memory than the standard issue PC. This should result in increased productivity for designers and give them a stable platform from which to work.

### ***Highway Safety System Consolidation***

When the Highway Safety group moved from the Department of Public Safety to MoDOT much of its IT infrastructure and IS systems had to be moved and modified to fit with MoDOT's. IS installed new PCs and printers, converted email from Groupwise to Lotus Notes, and connected the new group to its core network, all the while making sure that users productivity was minimally interrupted.

### ***AIX Systems Upgrade***

Servers that utilize IBM's version of the UNIX operating system, AIX, form the platform upon which most of MoDOT's large databases reside. It's from these databases that critical business information is gleaned daily. Thus, it's critical that the servers provide the power to create reports promptly. This year MoDOT purchased two large AIX servers that power both existing and new databases. Older AIX machines will be retired after applications and data are moved from them.

### ***Storage System Upgrade***

MoDOT kept pace with its growing data storage needs by upgrading one of their IBM Enterprise Storage System (ESS) units complete with faster processors and higher density disk drives. MoDOT now has 36 Terabytes of available storage in the Storage Area Network comprised of the two ESS units. Most online data, from financial to design to simple Word documents, are now stored on these units. The Storage Area Network provides much better storage management than stand alone server disk storage, and allows better utilization of the storage disks themselves.

### ***Wireless Systems Implementation***

Wireless technology increases productivity by increasing the freedom of PC users to take their units where their work is actually happening, whether it's a meeting room in a MoDOT facility or an off-site contractor location. Two types of wireless technology have been implemented at MoDOT this year. The first, wireless LAN technology, has allowed PC users at MoDOT to access their data and other online resources from places away from their normal workplace by taking their laptops with them, such as when they attend meetings. The second is point-to-point wireless bridging, which allows remote MoDOT buildings, such as some sheds and RE locations, to be connected to MoDOT's internal network at speeds much higher than dial in. In both cases connection to needed data is enhanced and users are able to make better decisions at critical times.

### ***Token Ring to Ethernet Conversion***

With the exception of a few isolated small buildings MoDOT completed its migration from Token Ring network technology to Ethernet this year. This move increases network bandwidth while saving money with every PC connected, since most PCs today come with onboard Ethernet connections but must have a separate, purchased card to connect to Token Ring.

### ***Business Intelligence Technology Upgrade***

MoDOT has used Business Intelligence (BI) tools from Cognos Corporation for many years as the foundation for its information reporting system. This year Information Systems made plans to upgrade to the latest version (Version 7), and to install a new tool from Cognos, PowerPlay, to go along with tools Impromptu and Impromptu Web Reports, which were already in production. PowerPlay is an Online Analytical Processing (OLAP) tool that allows a user to see data in many different ways very quickly. Just prior to the implementation of Version 7, Cognos announced its next generation of reporting technology called ReportNet. This product allows all reports, both ad hoc query and canned, to be browser-based and it also greatly eases the burden of creating

meaningful reports quickly. Information Systems is in the process of upgrading from Version 7 to ReportNet, and will implement the newer technology in the first quarter of 2004.

### ***Oracle Upgrade***

Oracle is the standard RDBMS at MoDOT. It's imperative that currency be maintained because much of the mission critical systems are built on Oracle databases. If the vendor can't guarantee support because we aren't at the right version critical fixes may not be able to be implemented and needed reports and transactions would be imperiled. This year Information Systems finished upgrading to the latest version of Oracle. This move also improved performance, as the Oracle Corporation built new functionality into its latest release that reduced the run times of many key financial and core business reports.

### ***Notes/Domino Upgrade***

MoDOT has used Lotus Notes for over 10 years, for both applications as well as email. It has been MoDOT's sole email platform since late 1998. Version 4.6 was implemented at that time and has provided critical mail and calendaring function for approximately 4600 users since then. Lotus has incorporated many new and improved functions in releases since 1998, but MoDOT has been reluctant, for many reasons, to upgrade until now. With the advent of Version 6, however, IS decided enough new function existed, and enough software defects were fixed, to warrant an upgrade. IS completed the project and consolidated 18 servers scattered throughout the 10 district offices and general headquarters complex to 6, all located at GHQ. Users in locations remote from GHQ access the same centralized servers as those at GHQ.

### ***PC/Laptop Upgrade***

MoDOT attempts to maintain a four-year replacement cycle for its PCs and Laptops to prevent rising maintenance costs and to provide a productive platform for our users. This year IS again replaced over a thousand outdated PCs and laptops with faster, more stable and more reliable ones at a very reasonable per unit cost.

### ***WAN Fiber Connection to Districts***

MoDOT completed implementation of high-speed fiber optic connections to its District offices late this year. Previously, connection had been made to seven offices. The three remaining office connection were delayed due to bankruptcy proceeding of the fiber supplier. Once those were completed the connections were put in place, making the way for the completion of several projects noted above, such as the Server Consolidation and the Notes Upgrade projects.

### ***Video Conferencing***

MoDOT has procured the hardware and software necessary to establish room-to-room Video Conferencing over its fiber based WAN. All 10 Districts and the GHQ will have units permitting multi-point video conferencing, enabling users at these locations to see and talk with users in any or all locations.



### ***Advantage:Gen Upgrade***

IS upgraded Advantage:Gen, one of its application development tools, to version 6.5 this year. This version supports the development of applications that are web-enabled. IS used this tool to web-enable the existing Fleet application, thereby eliminating the need to maintain code on individual workstations.

## **Planned Projects**

### ***Enterprise Architecture***

More work on the enterprise architecture is planned for 2004 to include technical standards for security and network management, and business architecture documentation in the financial transactions, geographic locations, and Information Systems processes areas. The financial transactions project will be part of an evaluation of internal controls in compliance with the Sarbanes-Oxley act.

### ***Program Management System***

This system will allow the Transportation Planning unit within MoDOT to more effectively track the Statewide Transportation Improvement Program (STIP) for MoDOT. Plans call for the system to integrate with the Departments' Transportation Management System so that improved decision-making, planning and reporting can occur to ultimately help the Department meet its commitments. The new web-enabled system will replace many non-integrated systems and manual processes to significantly improve the way the Department tracks its STIP commitments to the public. At present, high-level functional requirements are being gathered and a second phase to document the requirements in more detail will soon be initiated. At that point MoDOT will conduct a buy versus build decision and proceed toward an implementation date of Fall 2004.

### ***Virtis System - Bridge Rating***

MoDOT Bridge Division is gearing up for the upgrade of Virtis to version 5.1. Virtis is the American Association of Highway and Transportation Officials (AASHTO) software product for bridge load rating. It features state-of-the-art graphical tools to speed preparation of data and application of the results. Virtis provides an integrated database where bridge rating inputs and outputs can be readily stored and re-used. Future plans call for Virtis rating data to be interfaced into the Departments' Transportation Management System (TMS).

### ***OPIS System – Bridge Design***

Recognizing the great potential for reusing modular software developed in the Virtis project, MoDOT's Bridge Division is gearing up for the upgrade of the OPIS system to version 5.1. OPIS 5.1 will allow the Bridge Division engineers to more efficiently design bridges utilizing the Load Rating Factor Design (LRFD) technique sanctioned by the Federal Highway Administration (FHWA).

### ***Improvements to Bid Letting Internet Pages***

This project will enhance and improve numerous MoDOT web pages that contain information about MoDOT's bid lettings. The enhancements will provide for easier and quicker access to project information needed by potential contractors and the public. The enhancements will also incorporate the new look and feel created for the MoDOT external web site.

### ***Pre-Acceptance List (PAL)***

This project will develop a self-service Internet application for contractors to get timely approval on construction materials by entering inspection acceptance data into a web-based checklist. This system will streamline the current manual approval process and will help ensure materials are available so that commitments for construction projects can be met.

### ***Disadvantaged Business Enterprise Software***

The software for enabling a Unified Certification Process is planned and is intended to serve as a "one stop shop" for Minority/Women Disadvantaged Business Enterprise (DBE) applications and certifications, and also will develop a single DBE Directory. This system will provide the flexibility to track additional data related to civil rights issues including trainees, compliance and DBE verification as well as the ability to help perform the annual goal setting requirements for the Department.

### ***Chief Counsel Automated Management System***

This multi-phased, multi-year project began with identification of the functional requirements for the Chief Counsel staff to track and manage on-going litigation for the Department. From there a buy versus build decision occurred and the decision was made to purchase the Practice Manager product from RealLegal Inc. Efforts began in late summer of 2003 to begin installation. Currently, configuration, customization and conversion of data from existing systems are underway with a planned implementation date in early 2004.

### ***Customer Relationship Management (CRM)***

This project will implement a web-based Customer Service portal by establishing an enterprise-wide Customer database, utilizing input from Public Information Office staff and others, and operating in conjunction with the IP-based Call Center project below. The system will be built to integrate with other systems that utilize Customer input such as the Adopt-A-Highway system, Motor Carrier permit system, and the Sunshine request workflow system.

### ***IP-Based Call Centers***

MoDOT maintains a call center in every District office, one in each Traffic Management Center, and one at the general headquarters building. This upcoming project provides an IP Telephony based solution that will link incoming calls to customer account information and enable Call Center agents to better serve the public at large. MoDOT is also looking at a similar solution to better serve the Motor Carrier industry.

### ***Additional Telecommunications Implementations***

Additional wireless LANs are planned for several District offices and we expect to replace some existing dial-up connections with wireless WAN technology. All buildings still outfitted with Token Ring networks will be converted to Ethernet. These are primarily outlying buildings in the Districts and Resident Engineer offices. IS also plans to replace many dial-up connections with VPN solutions, generating cost savings and increasing productivity.

### ***Gateway Guide***

IS is beginning to replace an existing ATM network now utilized by Gateway Guide in St. Louis with one utilizing Ethernet over SONET technology. IS plans to extend the SONET over fiber optic network presently in use by Gateway Guide as the number of highway detectors and video cameras increase. Approximately 150 online video cameras are expected to be operational by the end of 2004.

### ***I70 Fiber Optic Network***

This will be a SONET Dense Wave Division Multiplexing (DWDM) network connecting the St. Louis and Kansas City Intelligent Transportation Systems (ITS) to Jefferson City. This network is the first leg of a statewide Transportation Management network that will also allow the expansion of the Intelligent Transportation Systems to rural areas.

### ***MEROC Secure Communications***

IS is planning to help the Traffic division of MoDOT establish secure data and voice communications between mobile emergency command centers and GHQ.

## **Accumulated Demand**

Information Systems continues to have a backlog of IT requests originating from almost all functional units and some districts within MoDOT. Included in this backlog are requests for new software, updates to current software, requests for new hardware such as PC desktops and laptops, and requests for new technology such as wireless devices. The current estimated timeframe to complete the work represented by this backlog continues to range from three to four years at an estimated cost of 12 to 15 million dollars.

Information Systems provides a requesting mechanism for commodity-type IT purchases but utilizes a different process for IT projects that require a more substantial investment in IS staff time or Expense and Equipment funds. Except for large-scale PC, laptop, printer, and plotter replacement purchases, most commodity-type IT purchases are handled according to the budget capabilities of the requesting operating unit. The larger and costlier IT solutions are considered projects, and are reviewed by an executive committee for viability, strategic alignment, business need, return on investment, and various other business and technical criteria.

Starting in 2003 the executive review committee was reconstituted and began processing IT projects in a similar method as transportation projects have been for many years. A multi-year IT Strategic Plan was developed and a three-year funding model called the Information Technology Improvement Program (ITIP) was adopted (transportation projects are on a five-year model). The three-year ITIP model allows better management of the accumulated backlog through a prioritization process that spans across fiscal year boundaries. The commitments made for IT projects in years two and three also allows IS to perform necessary planning and prerequisites, such as adopting technical architecture standards and acquiring the needed infrastructure, so that the projects can be more successful.

<b><i>General Department Profile (2003)</i></b>			
Department Name			
<i>Missouri Department of Transportation</i>			
Street Address		City	Zip
<i>105 West Capitol Avenue</i>		<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL	
<i>751-2551</i>	<i>526-2484</i>	<i>www.modot.state.mo.us</i>	
Department Director			
<i>Henry Hungerbeeler</i>			
Number of FTE (entire department)		Approximate number of citizens served	
<i>6400</i>		<i>All Missouri</i>	
Agency Mission (brief statement)			
<i>Taking care of and improving Missouri's transportation system.</i>			

<b>Department CIO and IT Division Profile (2003)</b>		
<i>Information Systems</i>		
<i>Lew Davison</i>		
	City	Zip
<i>105 West Capitol Avenue</i>	<i>Jefferson City</i>	<i>65102</i>
CIO Phone Number		E-Mail Address
<i>526-2949</i>	<i>751-2839</i>	<a href="mailto:Davisl@mail.modot.state.mo.us">Davisl@mail.modot.state.mo.us</a>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
IT Division Name		Website URL
<i>Information Systems</i>		
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>104</i>	<i>32</i>	
Total \$\$ value of FY03 IT requests submitted to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>0</i>	<i>0</i>	
Security Officer Name	Phone No.	E-mail
<i>Steve Derendinger</i>	<i>522-1296</i>	<a href="mailto:Derens@mail.modot.state.mo.us">Derens@mail.modot.state.mo.us</a>
Privacy Officer Name	Phone No.	E-mail
ITAB Alternate Name	Phone No.	
<i>Kim Potzmann</i>	<i>526-2307</i>	<a href="mailto:Potzmk@mail.modot.state.mo.us">Potzmk@mail.modot.state.mo.us</a>
	Phone No.	
<i>Leonard Hodges</i>	<i>751-7075</i>	<a href="mailto:Lutzt@mail.modot.state.mo.us">Lutzt@mail.modot.state.mo.us</a>

<b><i>Department Technology Profile (2003)</i></b>	
Department Name	
<i>Missouri Department of Transportation</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	<i>T3 Solution, Intel based mainframe</i>
PC Servers	<i>Dell and Compaq with Windows 2000</i>
Mid-range	<i>IBM RS6000 with AIX</i>
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Dell with Windows 2000 and Compaq with Windows NT</i>
Dumb terminal	<i>None</i>
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>SNA and TCP/IP</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Dialup and LAN</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>McAfee Netshield/Groupshield and TrendMicro</i>
Desktop	<i>McAfee VirusShield</i>
Internet	<i>PIX Firewall, Cisco and Computer Associates intrusion detection</i>
Help Desk Packages (Magic, GWI)	
<i>Magic</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>Oracle, SQL, DB2</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>COBOL, Advantage:Gen, Websphere, Versata</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Lotus Notes</i>	
Encryption Packages (SSL, PGP, etc.)	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

Telecommunications (T1, Frame Relay, etc.)
<i>Packet over SONET and Frame Relay</i>
GIS (ArcView, MapInfo)
<i>ArcView and ArcInfo</i>



# *Office of Information Technology*

## 2003 State of the State IT Report

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### Office of the State Treasurer

#### **Accomplishments**

##### ***Check Inquiry System***

On March 3, 2003, the State Treasurer's Office officially implemented a new Check Inquiry System to provide State Treasurer's Office staff and state agencies the ability to check the status of a state issued checks. The system reflects the paid, outstanding, cancelled and stop payment status of a check. STO developed the check inquiry system in-house using Visual Basic .NET and Microsoft SQL Server in an effort to upgrade and reduce the cost of the system to the State of Missouri agencies. The system allows STO and other agencies immediate access via a browser to the status of a check issued by their agency. Previously agencies needed mainframe access to the system and/or relied on the STO for the information.

#### **Planned Projects**

##### ***ACH Inquiry System***

In an effort to build on the current check inquiry system, the Missouri State Treasurer's Office is in the process of developing a similar inquiry system for ACH transfers of State of Missouri funds. The ACH Inquiry System will provide the State Treasurer's Office staff and state agencies the ability to check the status of ACH transfers. The system reflects the status of the transfer. A system for ACH inquiry is currently not available to all state agencies. The only method of inquiry is via the contractor by the STO staff. STO is developing the ACH Inquiry System in-house using Visual Basic .NET and Microsoft SQL Server to reduce the cost of the system to the State of Missouri agencies. The system will allow the State Treasurer's Office and other agencies immediate access via a browser to the status of an ACH transfer issued by their agency. The majority of the development was completed in 2003 and is due for release to State of Missouri agencies in spring of 2003.

## **Accumulated Demand**

The demand for the development of in-house applications continues to grow in the State Treasurer's Office. In-house application solutions are being considered instead of packaged products that don't meet the needs and contracted services that are too high in cost.

<b><i>General Department Profile (2003)</i></b>		
Department Name		
<i>Missouri State Treasurer's Office</i>		
Street Address	City	
<i>301 West High Street</i>	<i>Jefferson City</i>	<i>65102</i>
Main Phone Number	Main Fax Number	Website URL
<i>(573) 751-1360</i>	<i>(573) 751-0343</i>	<a href="http://www.treasurer.missouri.gov">http://www.treasurer.missouri.gov</a>
Department Director		
<i>Nancy Farmer, Treasurer; BK Perkins, Deputy Treasurer</i>		
Number of FTE (entire department)	Approximate number of citizens served	
<i>50</i>	<i>Unknown</i>	
Agency Mission (brief statement)		
<i>Utilize public resources to responsibly manage state funds, to promote economic growth and enhance the lives of Missourians.</i>		

<b><i>Department CIO and IT Division Profile (2003)</i></b>		
Department Name		
<i>Missouri State Treasurer's Office</i>		
Department CIO Name		
<i>Scott Peters</i>		
	City	
<i>301 West High Street</i>	<i>Jefferson City</i>	<i>65102</i>
CIO Phone Number	CIO Fax Number	E-Mail Address
<i>(573) 751-8522</i>	<i>(573) 526-5011</i>	<a href="mailto:Scott_peters@mail.sto.state.mo.us">Scott_peters@mail.sto.state.mo.us</a>
<i>CIO Membership in Professional Associations – Leadership Role Involvement (i.e., NASCIO – serve on architecture standards committee)</i>		
<i>Member in Information Technology Advisory Board for the State of Missouri</i>		
<i>Missouri Certified Project Manager</i>		
IT Division Name		Website URL
<i>Division of Information Technology</i>		<i>NA</i>
Number IT FTE (located in central office)	Number IT FTE (located in field)	
<i>3</i>	<i>0</i>	
to OA Budget and Planning	Total \$\$ value of FY03 IT requests funded	
<i>\$0</i>	<i>NA</i>	
Security Officer Name	Phone No.	E-mail
<i>Kim Evers</i>	<i>751-8771</i>	<a href="mailto:Kim_evers@mail.sto.state.mo.us">Kim_evers@mail.sto.state.mo.us</a>
Privacy Officer Name	Phone No.	
<i>NA</i>	<i>NA</i>	<i>NA</i>
ITAB Alternate Name	Phone No.	
<i>Daniel Moeller</i>	<i>751-7280</i>	<a href="mailto:Daniel_moeller@mail.sto.state.mo.us">Daniel_moeller@mail.sto.state.mo.us</a>
	Phone No.	E-mail
<i>Scott Peters</i>	<i>751-8522</i>	<a href="mailto:Scott_peters@mail.sto.state.mo.us">Scott_peters@mail.sto.state.mo.us</a>

<b>Department Technology Profile (2003)</b>	
Department Name	
<i>Missouri State Treasurer's Office</i>	
Main Processors (IBM 390 with MVS, UNIX AIX, UNIX Sun, etc.)	
Mainframe	
PC Servers	<i>Dell PowerEdge</i>
Mid-range	
Networked	
Desktop (Windows XP, 3270, Linux, etc.)	
PC	<i>Dell</i>
Dumb terminal	
Network Protocols (TCP/IP, SNA, IPX, etc.)	
<i>TCP/IP; SNA</i>	
Internet Connections (DSL, Cable, Dialup, etc.)	
<i>Fiber; Dialup</i>	
Internet Service Provider (MORENET, AOL, etc.)	
<i>MORENET</i>	
Security Provisions (packages, anti-virus, filters)	
Network	<i>Norton Anti-virus</i>
Desktop	<i>Norton Anti-virus</i>
Internet	<i>Norton Anti-virus</i>
Help Desk Packages (Magic, GWI)	
<i>NA</i>	
Database Management Systems (DB2, Oracle, SQL, etc.)	
<i>MS SQL Server</i>	
Development Tools (COBOL, CICS, Advantage:Gen, Websphere, .NET, etc.)	
<i>MS Visual Basic; .NET</i>	
E-Mail Packages (Exchange, Lotus Notes, etc.)	
<i>Exchange</i>	
Encryption Packages (SSL, PGP, etc.)	
<i>SSL</i>	
Version Control Packages (Source Safe, Panvalet, InterSource, etc.)	

<i>NA</i>
Telecommunications (T1, Frame Relay, etc.)
<i>Fiber</i>
GIS (ArcView, MapInfo)
<i>NA</i>